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ABSTRACT

A state-by-state overview of activities related to teacher policies and 11 tables reflecting types of policies in the states are presented in this working paper. Table 1 shows that most states require teacher education students to complete specific programs or coursework and that many also require some demonstration of competence. Table 2 delineates standards for admitting students into teacher training programs. Types of training that lead to the award of a teaching certificate are shown in Table 3. Table 4 shows which states require education students to have classroom experience before they become student teachers and which require internships before certification. Table 5 lists the types of initial certificates that states award and enumerates requirements for renewing certificates. Table 6 provides information for obtaining advanced certificates. Table 7 indicates states' provisions for staff development and inservice education for teachers and administrators. Tables 8 through 11 provide information about programs designed to attract people toward teaching and keep them in the profession. Specifically, Table 8 reports student enrollment data and delineates fields in which teachers are in short supply, Table 9 discusses undergraduate scholarship or loan programs, Table 10 outlines incentives for college graduates to acquire additional training, and Table 11 covers incentives to improve the skills of teachers and increase the attractiveness of the teaching profession. (RH)

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Working Paper No. 2

SURVEY OF STATES' TEACHER POLICIES

by
Patricia Flakus-Mosqueda

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CONTENTS

PREFACE iv

OVERVIEW vi

BIBLIOGRAPHY x

GLOSSARY xi

HIGHLIGHTS OF STATE POLICIES 1

Table I -- STANDARDS FOR TEACHER TRAINING PROGRAMS AT STATE INSTITUTIONS OF HIGHER EDUCATION 23

Table II -- ADMISSION STANDARDS FOR STUDENTS IN TEACHER TRAINING PROGRAMS 28

Table III -- REQUIREMENTS FOR GRADUATION FROM A TEACHER TRAINING PROGRAM AND FOR INITIAL CERTIFICATION 34

Table IV -- POST-GRADUATION TRAINING REQUIRED FOR CERTIFICATION; FIELD EXPERIENCE PRIOR TO STUDENT TEACHING 40

Table V -- INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL 46

Table VI -- REQUIREMENTS TO OBTAIN ADVANCED CERTIFICATE 53

Table VII -- STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS 59

Table VIII -- TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES 83

Table IX -- INCENTIVES: SCHOLARSHIPS/LOANS TO ATTRACT AND TRAIN NEW TEACHERS 96

Table X -- INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE 102

Table XI -- INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES 110

PREFACE

The information on teacher policies covered in this working paper is presented in 11 tables which reflect types of policies in the states. The tables are preceded by a "Highlights" section, which is a brief state-by-state overview of major activities covered in the tables and in many cases the "Highlights" contain additional information (e.g., information on current state task forces).

Readers interested in a particular topic can look at a table (e.g., Table IX on scholarship programs) to find out which states are doing what in this field. Readers interested in programs in a particular state (e.g., California) should check the "Highlights" section for California, then look at the California entry in each table for more detailed information. Whenever possible, information is provided on programs that are being planned as well as on programs that have been implemented. Only a few states have developed policies or programs in all 11 areas covered in the tables, so there may be no entry for a particular state on one or more of the tables.

Table IV and Tables VII through XI present information in short paragraphs; a more standard tabular format is used in the other tables. The information collected in the survey covers a variety of activities, so categorizations are, by necessity, broadly conceived. This means that an "X" in, for example, the "student teaching" column of Table III represents programs that may vary considerably in duration, complexity, type and other ways.

The information on which this working paper is based was collected during the summer of 1983, mainly through telephone interviews with knowledgeable persons in the 50 states. The directory of the National Association of State Directors of Teacher Education and Certification proved a useful source of state contacts. The contact person (and the chief state school officer) in each state received draft copies of state information for verification and correction.

ECS staff conducted two related 50-state surveys during the summer of 1983. Results have been incorporated into working papers available from the ECS Distribution Center. State Programs of School Improvement, 1983: A 50-State Survey covers school improvement activities in the states, including effective schools projects, planning, program review, curriculum development, accreditation standards, technical assistance and student testing. 50-State Survey of Initiatives in Science, Mathematics and Computer Education provides information on task forces, graduation requirements, curriculum, special programs, teacher training and other matters related to these fields. Those surveys and this one together paint a fairly comprehensive picture of what the states are doing to improve education.

I would like to thank all the people who contributed time and effort to the collection of data for this survey and especially those who participated in telephone interviews or sent supporting materials. I would also like to thank the staff at ECS who reviewed, typed and edited this paper.

I wish to apologize in advance for any omissions. Even though the survey was as thorough as I could make it, I know it is impossible to identify every program in every state.

Patricia Flakus-Mosqueda

OVERVIEW

State leaders have been concerned about teacher quality for a number of years. Moreover, the quality of education -- including the quality of teachers -- has been the subject of recent national reports and widespread public attention. In response to this sustained and recent interest, the Education Commission of the States conducted a survey of states' teacher policies and presents the results in this working paper.

State policies have been divided into categories and are presented through the topics covered in the 11 tables. The first table covers standards that states set for teacher training programs in institutions of higher education. The next several tables follow the progression typical in the training of a teacher: standards for admission into teacher training programs, types of teacher training programs, requirements for initial and advanced certification, and staff development activities for practicing teachers. Next comes a table illustrating areas of teacher shortages in each state. Shortages have been a major factor leading to incentive programs to attract and retain teachers, and the last several tables discuss incentives ranging from undergraduate scholarships to merit pay for practicing teachers.

Table I shows that most states require specific programs or coursework of teacher education students and many also require some demonstration of competence. In the majority of states, the state board or state department of education sets standards -- often using guidelines from organizations such as the National Association of State Directors of Teacher Education and Certification. In other states, standards are set by teacher commissions, boards of higher education or institutions of higher education.

Table II delineates standards for admitting students into teacher training programs. In many states institutions of higher education establish their own standards, often using grade point averages and test scores as criteria. It is interesting to note that many state institutions also offer career counseling to entering students.

The types of training that lead to the awarding of a teaching certificate are shown in Table III. Twenty states test the competence of candidates for certification, and other states are studying the possibility. Virtually all states require student teaching; many states couple student teaching with other requirements.

Table IV shows which states require education students to have classroom experience before they become student teachers, and also which states require beginning teachers to complete "internship" programs before they receive regular certification. At least five states require early field experience, sometimes in the freshman or sophomore year. A number of states are extending training programs for beginning teachers. In several states (e.g., Florida, Georgia, Oklahoma and South Carolina), such programs are already in place. Arizona and Virginia are currently pilot testing programs, Mississippi will soon begin pilot testing, North Carolina will institute a program by 1984, and at least eight other states are planning similar programs. In some instances, a statewide commission or the governor has recommended the institution of a program for beginning teachers; in others the concept is being reviewed (by the state board or another agency); and in others a plan is currently being drafted.

In general, programs for new teachers call for the creation of an instrument to evaluate how well teachers meet specific performance objectives. They require that evaluators (usually a team of three) be designated and trained in evaluation procedures. Programs usually last one to three years, during which time beginning teachers are not only evaluated, but also given individualized staff development experiences.

Table V lists the types of initial certificates states award and the requirements for renewing certificates in states that permit renewal. (States with a program for beginning teachers sometimes award a "provisional" certificate to new teachers. Table V lists the first regular certificate awarded.) The first certificate is often (but not always) valid for about five years, and renewal is based on teaching experience or acquiring a specified number of college credits or both. Many states also apply inservice training toward certificate renewal.

Table VI lists the types of advanced certificates that states award and the requirements for obtaining them. Some states have several levels of advanced certification. Most states require teachers to complete either a master's degree or a sizable number of additional college courses, plus several years of successful teaching. (There may also be other requirements, such as positive evaluations.)

Although Tables I through VI concentrate on teachers, it is important to note that nearly all states also have training and certification requirements for principals and other administrators.

As Table VII shows, most states require or encourage teachers to continue developing their teaching skills. In virtually all states, local school districts provide inservice training or staff development programs. The involvement of the state department of education varies from state to state. In most instances, state department staff are available to provide technical assistance to school districts. Many state departments also offer their own programs or establish guidelines for district inservice programs. For example, many states require that inservice offerings be relevant to needs identified through local "needs assessments;" and some states require staff development tailored to the specific needs of individual teachers. A priority in other state departments is statewide coordination, including the publication of lists of programs and resources. Several states maintain regional centers for staff development activities; some state departments and districts cooperate with colleges and businesses to develop inservice programs. Table VII also shows that administrators in approximately two-thirds of the states participate in staff development. Many times principals and other administrators take part in the same activities as teachers, but in many states they can participate in institutes, academies, workshops, etc. designed for them specifically. Activities for administrators often focus on problem-solving, budgeting, stress management, networking, and methods for assisting teachers.

Tables VIII through XI discuss programs that have been designed to attract people into teaching and keep them in the profession. Many of these programs establish incentives -- such as scholarships and loans for college training, or extra compensation for meritorious teaching. Incentive programs are usually designed to make either training or the teaching experience itself more attractive -- especially to good students and good teachers.

Because many recent incentive programs have been initiated to solve problems of teacher shortages, Table VIII delineates the particular fields in which teachers are in short supply. Not surprisingly, shortages are most commonly cited in mathematics and science. Thirty-eight states now have shortages in these fields, and several more predict shortages in the future. Many states with science shortages indicate that physics and chemistry are a greater concern than other branches. Nearly half the states cite shortages in one or more branches of special education; and half the states mentioned shortages in industrial arts or vocational education. Spot shortages occur in other fields, including English and elementary education. Figures on student enrollment, also presented in Table VIII, indicate that enrollment in the public elementary and secondary schools generally decreased in the last decade or so; however, many states report that the decline in elementary school enrollment may have "bottomed out" and that a gradual increase can be expected in the mid- to late-1980s. This increase may exacerbate the teacher shortage problem.

Incentive programs are divided into three categories on three different tables. Table IX discusses undergraduate scholarship or loan programs, many of them targeted toward training teachers of science and mathematics. Seventeen states have enacted this type of program -- many in the most recent legislative session. Common to many of these programs is a provision for forgiving loans to students who subsequently teach a specified number of years. (Even "scholarships" often require subsequent teaching.) At least seven other state legislatures discussed scholarship/loan programs in recent sessions but enacted no legislation. It is likely that many states will consider these types of incentives in the next few years.

Incentives for college graduates to acquire additional training are discussed in Table X. This table covers programs to improve the skills of those already teaching a particular subject, programs to train teachers in one field to teach in another field (often in shortage areas), and programs to train people with college degrees but without formal training as teachers. Some states provide scholarships, loan programs or tuition reimbursement to participants in traditional college programs. Other states design special programs. In a few states, among these Florida, Mississippi, Missouri, North Carolina, North Dakota and Wyoming, summer institutes are the vehicle for retraining teachers from other fields (especially from over-supplied fields) to become teachers of mathematics, science or other high-demand subjects. Another approach -- usually designed to attract nonteaching professionals into the classroom -- is on-the-job training, where traditional coursework plus assistance in teaching leads to full certification (especially for shortage fields). And in some states (e.g., Maine, Massachusetts and Vermont) universities have designed programs to train people from other professions (mainly business and industry) as mathematics and science teachers. Several other states have considered retraining possibilities, and more programs may be established in the future.

The final table, Table XI, covers incentives to improve the skills of teachers and increase the attractiveness of the teaching profession. "Merit pay," "master teacher," and "career ladder" plans are examples. These plans generally prescribe salary increments beyond the standard pay schedules for selected teachers, often expanding duties of these teachers. Recently, California and Florida enacted statewide plans of this type. Table XI also notes that legislatures, governors, task forces, and other groups have discussed these types of programs in other states. Another approach to incentives is found in Louisiana and Mississippi, where professional development programs are tied to salary increments. A few instances of cooperation with business/industry are also noted.

For more detail on a particular topic, the reader is urged to consult the tables. The bibliography on the following page supplies additional sources of information for those interested in further exploration of teacher-related issues.

BIBLIOGRAPHY

Armstrong, Jane. 50-State Survey of Initiatives in Science, Mathematics and Computer Education for the National Science Foundation. Denver, Colorado: Education Commission of the States, September 1983.

Citron, Christiane H. "Legal Issues in Teacher Quality." Denver, Colorado: Education Commission of the States, Forthcoming.

Council of Chief State School Officers. "Report of the Ad Hoc Committee on Teacher Certification, Preparation, and Accreditation." Washington, D.C.: Council of Chief State School Officers, July 1982.

Dougherty, Van. State Programs of School Improvement, 1983: A 50-State Survey. Denver, Colorado: Education Commission of the States, October 1983.

Educational Research Service, Inc. Merit Pay for Teachers. Arlington, Virginia: Educational Research Service, Inc., 1979.

Odden, Allan. "Financing Education Excellence," Phi Delta Kappan, Forthcoming.

Palaich, Robert. "Issues in Compensating Teachers: Policy Options for South Carolina." Denver, Colorado: Education Commission of the States, September 1983.

Palaich, Robert. "State Policies to Screen and Attract Teachers," Issuegram No. 23. Denver, Colorado: Education Commission of the States, March 1983.

Palaich, Robert. "Restructuring Careers in Teaching," Issuegram No. 41. Denver, Colorado: Education Commission of the States, April 1983.

Palaich, Robert and Donald Burnes. "Teacher Shortages in the Next Decade," Issuegram No. 24. Denver, Colorado: Education Commission of the States, March 1983.

Roth, Robert A., editor. "A Manual on Teacher Certification and Program Approval Standards in the United States." Salt Lake City: National Association of State Directors of Teacher Education and Certification, available 1984.

Vlaanderen, Russell B. "Testing for Teacher Certification," Issuegram No. 7. Denver, Colorado: Education Commission of the States, January 1983.

GLOSSARY

Administrators: Principals, superintendents, business managers and other types of supervisors who are not primarily classroom instructors.

Building: Refers to the individual physical structure in which education services are provided (same as school). Has a principal, classroom teachers, etc.

CBTE: Competency Based Teacher Education.

District, school district, local school district: The local political jurisdiction in charge of providing education services, usually through the operation of several individual school buildings.

FTE: Full-time-equivalent; often used when referring to numbers of students.

GPA: Grade Point Average.

IHE: Institutions of Higher Education.

Inservice: Activities, designed to improve skills, that are engaged in concurrently with a teaching or administrative assignment.

K-12: Refers to kindergarten through 12th grade.

NASDTEC: National Association of State Directors of Teacher Education and Certification.

NCATE: National Council for Accreditation of Teacher Education.

NTE: National Teachers Examination (developed by the Educational Testing Service).

Preservice: Training (usually in a college) prior to certification that prepares an individual for a teaching (or administrative) career.

Public schools: Refers to publicly supported schools, kindergarten through 12th grade.

School: (see building).

State board of education, state board: Refers to the lay board charged with overseeing the provision of education services in the state.

State department of education, state department, SEA (state education agency): Refers to the state executive agency charged with implementing state education policies.

Superintendent, state superintendent of public instruction: Refers to the executive officer of the state education agency.

HIGHLIGHTS OF STATE POLICIES

Alabama

The state board of education is currently examining various policies -- including standards for training of mathematics teachers, and categories of special education training.

A scholarship program for mathematics and science teacher training is in its second year (see Table IX). All local school districts must submit plans for staff development to the state department (Table VII). Teacher shortages in mathematics and science coincide with the scholarship program aimed at training more teachers in these areas (see Table VIII).

Alaska

The Governor's Task Force on Effective Schooling (1981) made a number of recommendations -- including an emphasis on the need for strong leadership in the schools, especially leadership from the principal. The task force report recommended inservice for principals in particular, and also for teachers (see Table VII).

The state board of education recently approved a one-year study of teacher certification, and is also looking at curriculum requirements.

The state has a program which provides loans for teacher training as well as for other professional training (Table X). There are teacher shortages in some areas of special education, particularly speech pathology (Table VIII).

Arizona

Arizona is presently implementing a new program for initial certification. Applicants must pass a state-developed test in reading, mathematics and grammar -- and a professional knowledge test covering areas such as classroom management, instruction and assessment techniques, and learning theories (tests are currently in use). An initial internship program of on-the-job evaluation for new teachers is being pilot tested in 14 districts (see Tables I through IV).

Funding is available for undergraduate training for science and mathematics teachers (Table

IX), and for retraining of teachers in these fields (Table X). An interim legislative committee is studying teacher compensation (Table X). Local school districts can request state department assistance for inservice (Table VII). Some teacher shortages may develop in the future (Table VIII).

Arkansas

The Arkansas General Assembly recently passed a bill to provide a loan program to train mathematics and science teachers. This is available to students just entering college and to those students who already have a degree in mathematics or science but are currently enrolled in a secondary teaching program (see Table IX).

There are two statewide staff development programs: one for administrators; and one for administrators and teachers from local districts and from IHEs (Table VII).

California

The new education bill, SB 813, covers nearly all aspects of education; many provisions relate specifically to teachers and administrators. These include programs for training and retraining of teachers for critical shortage areas (see Tables IX and X); a "mentor" teacher program (Table XI); support for beginning teachers (Table IV); on-the-job training for skilled professionals who have not had formal teacher training (Table X); a general increase in beginning teacher salaries (Table XI); and required continuing education courses for all those who obtain an initial clear credential after September 1, 1985 (Table VII). The new law is funded at $800 million for 1983-84; however, when signing the bill, the governor eliminated funding for 1984-85.

Of special interest in the area of staff development are 15 regional "Teacher Education and Computer Centers" (Table VII). Like other states, California is experiencing some teacher shortages (Table VIII). The recent legislature considered a proposal to revise the state teacher credentialling law; this was not adopted, however.

Colorado

A concern in the state is that of teacher shortages, especially in mathematics (see Table VIII). There is also discussion within the governmental units (including the governor) and with community people regarding issues of incentives, such as merit pay, to attract/retain quality teachers. Recently, in response to national concerns of education excellence, the Colorado state board appointed several task forces. Teacher issues are among areas to be examined by these task forces (Table XI).

Colorado offers teachers and administrators several options for credit toward renewal of certificates -- including travel experience, release time for work experience and supervision of student teachers (see Table VII).

Connecticut

In order to address the problems of teacher shortages, the legislature has recently provided loans to train or retrain teachers in mathematics, science and industrial arts (see Table IX).

The entire area of teacher training is currently being reviewed by a statewide commission, composed of representatives from all areas of education -- colleges, local school boards, teachers, private schools, etc. Areas of inquiry include changes in certification standards, and the possibilities for internships for new teachers, master teacher licenses and certification in subject areas such as computer science or English as a second language.

For administrators, a five-year professional development plan was proposed in 1980 (see Table VII). The state is experiencing teacher shortages in several areas including physics and speech pathology (Table VIII).

Delaware

Effective July 1, 1983, applicants for a teaching certificate must pass a basic skills test (Table III) before they will be awarded the Initial Standard certificate. The state provides a large offering of inservice programs for teachers, and a Management Institute for administrators (Table VII). A recent task force recommended more training in evaluation and leadership for administrators (Table VII). Shortages of several types of school personnel have been noted (Table VIII).

Florida

In the area of teacher training, Florida's goal is to develop an integrated continuum (with feedback) of preservice (i.e., college), beginning internship and ongoing inservice programs for all teachers. The 1983 legislature enacted minimum course requirements for preparation for high school teaching (see Table III). A new "Beginning Teacher Program" implemented in 1982 requires a year of supervision/evaluation (Table IV). The 1983 legislature established a council (and provided funding) for development of plans for merit pay/career incentives for teachers (Table XI). Two years ago the legislature requested that a program be designed for salary differentials for outstanding principals (Table XI). The 1983 legislature passed an appropriation for institutes to retrain teachers -- especially those in mathematics and science who are teaching out of their fields (Table X).

In the area of inservice, all local school districts submit master plans to the state for approval (Table VII). Special funding was provided by the 1983 legislature to train principals in evaluation techniques (Table VII). A Florida Academy for School Leaders provides training institutes for administrators (Table VII).

Teacher shortages are being experienced in several subject areas, and may become even more pronounced (Table VIII).

Georgia

Georgia has initiated performance-based certification, which has two aspects: a criterion-referenced test (a requirement since 1978); and on-the-job assessment of new teachers, begun in 1980 (see Table IV).

Georgia has a loan program to train new special education, mathematics and science teachers, and also to retrain current teachers for mathematics, special education and science skills (Table IX). The state funds staff development for both experienced and beginning teachers, and also funds a Georgia Academy for Administrators (Table VII). Teacher shortages are found in several areas (Table VIII).

Hawaii

Although Hawaii has one statewide school system, it is divided into seven administrative districts for various purposes -- such as inservice coordination (Table VII).

The state department and IHEs work closely together -- examples include college offerings for inservice (Table VII), and a joint endeavor to try to develop a test for admission into teacher education programs (Table II).

Beginning teachers are observed for the first two years (Table IV). Paid sabbaticals for approved study are available for teachers and administrators (Table XI); and selected teachers may receive training leading to an administrative credential (Table XI).

Inservice in many subject areas is offered by the state department (Table VII). Principals and teachers are required to meet regularly to help teachers plan and implement individualized staff development programs (Table VII). Teacher shortages exist in mathematics, science, agriculture and bilingual education (Table VIII).

Idaho

The Idaho Commission on Excellence, a recent task force, has recommended that requirements for renewal of the initial teaching certificate be adopted (see Table V). The Professional Standards Commission, a state-level agency, is planning to review standards for receiving the initial certificate and for renewing it.

The Commission on Excellence has recommended that inservice requirements for all teachers be established (see Table VII). Administrators have formed planning/discussion groups to strengthen their leadership roles (Table VII). Shortages of mathematics and special education teachers are a concern in Idaho (Table VIII).

Illinois

A "Study of the Quality of the Preparation and Performance of Educational Personnel," commissioned by the state board of education in 1981 was recently completed. This was an extensive study which produced not only the report, but also background papers and a series of reactions to the report by a panel composed of administrators, local board members, IHE representatives and teachers. Topics include: (1) recruitment of teachers and other personnel; (2) assessment of a teacher's and administrator's academic and practical preparation; (3) recruitment and hiring by districts; (4) on-the-job performance evaluation and (5) staff development/inservice (see Table VII for inservice recommendations). Public reaction to the plan is currently being assessed -- including through public hearings. Implementation is planned to begin in the next year.

Students in teacher-training programs must observe and interact in a classroom prior to student teaching (Table IV). Retraining of teachers for mathematics and science skills was proposed in the recent legislative session (Table X). Recently, a program was enacted to recognize and honor outstanding Illinois teachers (Table XI). Teacher shortages, though found, are not seen as critical in Illinois (see Table VIII).

Indiana

The state board of education has a number of items on its agenda. These include: discussion of continuing education (inservice) requirements for teachers; and admission requirements and graduation standards for teacher training, possibly a minimum GPA or testing (see Tables II and III).

The legislature, in its recent session, passed several bills that address teacher issues: (1) a loan program to train mathematics and science teachers (Table IX); (2) retraining of teachers in "surplus" fields to become skilled in areas of teacher shortages (Table X); (3) incentives to business and industry to employ teachers in the summer (Table XI); and (4) a large appropriation for inservice programs for teachers in instructional usage of computers (Table VII).

Teacher shortages may be exacerbated when upgraded high school graduation requirements become effective in 1986 (Table VIII).

Iowa

In its recent session, the legislature approved a loan program for training of mathematics and science teachers (Table IX). Inservice is provided through 15 area education agencies in the state. These agencies must include inservice offerings which are based on the specific needs of local school districts (Table VII). Iowa, like many other states, experiences teacher shortages in mathematics and science (Table VIII).

Kansas

The state is beginning a new voluntary inservice program which is based on local planning and local needs (see Table VII).

The legislature has a special interim education committee studying -- among other issues -- teacher shortages, merit pay and the impact of the report of the National Commission on Excellence in Education.

Early classroom field experience will be part of a student's training program by 1985 (Table IV). Shortages of teachers in several fields -- including English -- are occurring (Table VIII).

Kentucky

A recent commission appointed by the state superintendent of public instruction has devised a new plan (although not yet implemented) for competency-based certification (see Table IV). A loan program is in effect to retrain teachers for high demand areas such as mathematics and science (Table X). Each school district must submit a master inservice plan to the state department of education (Table VII). Compared to other states, relatively few areas exhibit teacher shortages in Kentucky (Table VIII).

Louisiana

Louisiana initiated in 1980 an innovative approach to salary incentives. Substantial salary increments (beyond the regular salary schedule) are based on a teacher's participation in a voluntary "Professional Improvement Program" (which can include both academic and inservice activities -- see Table XI).

A recent legislative proposal would provide loans to train teachers in mathematics, science and foreign languages (Table X). These are areas (among others) of teacher shortages in the state; also, there is a demand for elementary teachers -- which may escalate due to expected enrollment increases (Table VIII

Maine

The state board of education is considering the institution of a two-year supervised internship for beginning teachers prior to regular certification (see Table IV). Teaching certificates in Maine are currently issued for general classifications. Majors and minors are indicated on the certificate; but a "science" major, for example, may teach physics, biology, etc. The state board may, in the next few years, require more specific certification designations.

Inservice activities are designed by the local districts, and assistance is available from the state department (Table VII). Inservice is one option for certificate renewal (Table V). In some instances, local school districts are able to acquire responsibility for renewal of teachers' certificates (Table VII).

There is a program of in-the-field training of speech and hearing specialists (Table X). This coincides with a shortage of people in these fields. Shortages are also found in industrial arts, and predicted for mathematics and science (Table VIII).

The Portland school district and a nearby university have begun an innovative program to train nonteachers, who are already skilled in needed areas, to become teachers (Table X).

Maryland

The "Commission on Quality Teaching" (appointed by the state board of education) submitted its final report in October 1982. Recommendations were made on a wide range of teacher issues.

These included, among others: new testing and GPA requirements for initial certification, and a support program for first year teachers, along with a requirement that new teachers meet statewide standards for effective teaching to be eligible for the Standard Professional Certificate (see Table IV); scholarships/loans for preparing new teachers (Table IX); retraining (including reimbursement for training in some instances) of teachers for shortage areas -- such as mathematics; creation of a better environment for teachers and better salary incentives (Table XI); and additional programs -- and funding -- for inservice (Table VII).

Currently, many districts in the state have extensive inservice programs, and the state department also offers programs around the state. There are two development centers for teachers, and an academy for administrators (Table VII). Teacher shortages are found in mathematics and several science fields (Table VIII).

Massachusetts

Teacher training programs focus on competency development. Five major standards and their associated competencies must be addressed in courses or other experiences, and demonstrated in a semester-long practicum. Only a total number of hours for professional study or course content is specified. An advisory commission to the state board (composed of teachers, administrators, parents, IHE representatives and students) makes recommendations on certification, etc. (see Table I).

The university, industry and public schools are cooperating in a program to train graduates for both teaching and industry (see Table X). An inservice institute provides grants to teachers (Table VII). Teacher shortages are found in some fields (Table VIII).

Michigan

The state board of education is currently reviewing a plan entitled "A Proposed State System for Educational Personnel Development: A Continuum Model." This document suggests that the entire training of teachers be viewed as a whole -- from college preparation through a proposed initial induction period for new teachers (see Table IV), and through ongoing individualized staff development programs for all teachers (Table VII). Certification standards would also be revised and integrated in the system. One aspect of this would be to relate grade-level certificate spans (e.g., grades 5-9) to developmental/growth periods (e.g., ages 10-14). Therefore, the teacher would acquire knowledge and skills to relate to particular stages in children's development (e.g., adolescence).

Several intermediate school districts and counties provide training workshops or seminars for principals and other administrators (Table VII).

Teacher shortages are found in some subject areas; however, critical problems are not in evidence, partly because of declining enrollments (see Table VIII).

Minnesota

The legislature, in its recent session, enacted a "Technology and Educational Improvement Law," effective July 1, 1983. The law has several components for increased training for teachers, including a provision for districts to apply for grants to retrain teachers (see Table X), and a large inservice component (Table VII). Total funding is over $5 million (Table VII).

There are some shortages of mathematics and science teachers in the state. Student enrollment is expected to increase which will augment the need for both elementary and secondary teachers (Table VIII).

Mississippi

The "Mississippi Education Reform Act of 1982" established several policies and activities which affect the education workforce. Among these is a study to be conducted of teachers teaching out of field -- covering both conditions and remedies. Other provisions include a plan for personnel appraisal and compensation (see Table XI); and the establishment of a Commission on Teacher and Administrator Education, Certification and Development which will set standards for teacher education programs, and certification and renewal. By 1984, a comprehensive plan for beginning teachers must be formulated, including tests and observational instruments -- and then be pilot-tested for two years (Table IV).

Other aspects of the new law will require districts to make comprehensive inservice plans, and a management institute will be established (see Table VII).

Loans will be made available for training and retraining in mathematics and science (Tables IX and X). These, along with industrial arts, are subjects with teacher shortages (Table VIII).

Missouri

Retraining in mathematics skills -- for elementary teachers to be able to teach grades 7,8 and 9 -- is a major focus in Missouri. The retraining focus is viewed as particularly important because many newly trained mathematics teachers actually go into other professions (see Table X). The Instructional Management System is a priority for state department technical assistance (Table VII). Besides mathematics and science, the state is also beginning to experience shortages of English teachers (Table VIII).

Montana

Because the state board of education is more likely to become involved in education policy issues, workshops are planned for board members to give them an overview of what is occurring in education and what could be incorporated -- and the role they can play.

The state department is focusing on better utilization of existing resources for inservice -- without the infusion of extra funding (see Table VII). The state department also conducts administrator workshops (Table VII). There are several areas of teacher shortages (Table VIII).

Nebraska

There is currently a task force on education quality, appointed by the state commissioner of education. Its general focus is on goals and objectives of education -- included is an assessment of inservice for teachers (see Table VII). The governor is also planning to appoint a task force which will respond to the concerns raised in the recent report of the National Commission on Excellence in Education. Many policy makers in Nebraska are also concerned about the nexus of business/industry and education.

Teacher shortages are found in mathematics and science (Table VIII); and recently the legislature passed a measure to provide loans for mathematics and science training (Table IX).

Nevada

There exists within selective school districts in the state, teacher shortages in the areas of mathematics and science. However, these shortages are not extreme to the point of warranting special action by the legislature in regard to providing special incentives to attract teachers into the state. Adequate funding for schools is still the main legislative concern, especially in light of the state's financial pressures. The legislature has, however, endorsed a plan to study and make proposals regarding teacher competency. This plan is being developed by the Professional Standards Commission, a legislatively established body, whose primary function is to make recommendations to the state board in regard to certification standards and state policy. Among issues being examined are admission criteria (see Table II); skills testing prior to certification (Table III); and a supervised initial teaching year (Table IV).

The Professional Standards Commission (composed of representatives from universities, teachers and lay people) is evaluating university teacher training programs as a result of the instituting of a state-approved program approach leading to teacher certification (instituted by the state superintendent of public instruction).

Inservice is offered by individual school districts; and the state department also offers workshops at central locations in the state

(Table VII). There are shortages of mathematics and science teachers; and enrollment is growing in the Las Vegas schools (Table VIII).

New Hampshire

The state board of education is currently considering the possibility of testing, both for admission into, and graduation from, teacher training programs (see Tables II and III).

Inservice participation is required of all teachers and administrators in a school district, and inservice is part of the overall master plan of the district (Table VII). Teacher shortages are found in several fields (Table VIII).

New Jersey

Certification standards in the state are being reviewed by the state commissioner of education. A "permanent" certificate is the only type currently awarded. New standards for teacher training programs have recently been established, including admission and graduation testing, and coursework specifications (see Tables I, II and III). The governor has recommended an internship for new teachers (Table IV).

In fall 1982, the commissioner of education and the chancellor of higher education jointly established the Advisory Council on Mathematics and Science Teacher Supply and Demand. In its interim report of March 1983, several recommendations were put forth. These include financial aid for those training to be mathematics or science teachers (Table IX); retraining of surplus teachers and nonteachers in mathematics and science, and also intensive workshops for current science and mathematics teachers (Table X). A job bank/referral system was suggested for these teachers (Table X). The council also made a careful analysis of the mathematics and science teacher shortage problems (Table VIII).

Reorganiation at the state department and regional levels has helped make inservice more responsive to local needs (Table VII).

New Mexico

The main focus of teacher issues in New Mexico recently has been on testing. Candidates must now pass a basic skills test to be admitted to the teacher training program (see Table II); and they must take the NTE to be certified (Table III). Inservice is planned and implemented at the local district level (Table VII). Shortages in mathematics, science and special education are occurring (Table VIII).

New York

Recent Board of Regents' proposals to the legislature have included four bills for mathematics and science teacher training with a total funding request of $1.8 million. These include loans for training new teachers (see Table IX); graduate fellowships for advanced training (Table VIII); inservice programs to retrain teachers from other disciplines (Table X); and consultantships for teachers (Table XI).

Inservice in the state is offered by local districts, but the state department would like to develop comprehensive guidelines (Table VII). Some teacher shortages and also declining enrollments have been noted (Table VIII).

North Carolina

The Quality Assurance Program, adopted by the state board of education and the board of governors of the university system, mandates new standards for teacher training institutions, for admission into teacher training (see Table II), and for revised certification which includes a two-year beginning teacher program, effective July 1, 1984 (Table IV).

The state has some scholarship monies available for mathematics and science teacher training (Table IX), and the governor has requested funds for retraining teachers in mathematics and science skills (Table X). The Charlotte-Mecklenburg school district is nearing completion of a plan for career ladders for teachers (Table XI). Local districts have some state funds available for inservice (Table VII). Some teacher shortages, and student enrollment increases are expected (Table VIII).

North Dakota

In place of the former lifetime certificate, North Dakota has substituted a two-year entrance and a five-year renewable certificate (see Tables V and VI). Renewal requires at least four additional college credits, two years of teaching experience and three positive recommendations.

An interim legislative study is reviewing the possibility of competency testing for initial certification (Table III).

Most inservice is provided and funded by local school systems (Table VII). Some teacher shortages are possible in the future (Table VIII).

Ohio

Since 1980, new standards have been in effect for college training programs, including admissions standards and training requirements. Early field experience in the freshman or sophomore year is one of these new requirements (see Table IV).

"Continuing education units" are now required for administrators; a similar standard may be instituted for teachers (see Table VII). Some fields show less than adequate supplies of available teachers; and student enrollment continues to decline (Table VIII).

Oklahoma

The state has competency screening both for admission into teacher training and for certification (see Tables II and III). A beginning teacher internship is also required (Table IV). The Professional Standards Board and the state board of education are currently revising state requirements for teacher training programs (Table I).

The state and local districts have extensive inservice programs (Table VII); and teacher shortages are occurring in several fields (Table VIII).

Oregon

The state department is exploring the possibility of a testing requirement before teaching certificates are awarded (Table III). Currently, all IHEs use an admissions test (Table II). For many teachers, a fifth year of study is required beyond college graduation (Table V). Some individual school districts have "merit" pay plans (Table XI). Inservice is offered by local districts, with some assistance available from the state department (Table VII). Teacher shortages are occurring in several subject areas, and in some rural parts of the state (Table VIII).

Pennsylvania

Long-range planning for school improvement, a mandate of Pennsylvania's state department of education, has as a major component personnel development for both teachers and administrators. There is also a Pennsylvania Executive Academy (see Table VII). The legislature recently approved funds for training mathematics and science teachers (Table VII). Teacher shortages in some fields are occurring, along with declining enrollment (Table VIII).

Rhode Island

The state legislature has explored the possibility of an approach which involves defining the components of basic education and then providing adequate funding to assure basic education. Pilot programs are being tried in some districts using this approach.

Rhode Island currently issues a lifetime certificate (Table VI), but the possibility of requiring certificate renewal is being considered. The state has had a strong commitment to inservice for a number of years (Table VII). Teacher shortages are not critical, since the student population is declining severely (Table VIII).

South Carolina

The Educator Improvement Act, passed by the legislature in 1979, will be fully implemented in the 1983-84 school year (after several years of planning and development). The act covers the spectrum of teacher training -- including testing for admission into training (see Table II); evaluations during student teaching (Table IV); testing to obtain certification (Table III); evaluations and development programs for new provisional contract teachers (Table IV); procedures for continued evaluation of teachers; and observations and development programs for all those holding continuing contracts. The act also specifies procedures for review of college training programs.

The state superintendent of education recently issued a "Move to Quality" document which includes recommendations for professional teacher training. The state superintendent and the governor appointed a task force to examine incentive pay for quality teaching (Table XI).

Teacher retraining funds for science, mathematics and computer science were approved in the recent legislative session (Table VIII). The state is experiencing teacher shortage problems in several fields (Table VIII). The state provides funding for districts to offer inservice programs for teachers, and also operates an academy for administrators (Table VII).

South Dakota

A joint state board and board of regents task force, in operation for approximately six months, is looking at (1) the interface between high school graduation and college entrance standards; (2) college graduation requirements; and (3) teacher training programs at institutions of higher education. It is likely that recommendations will emerge to raise college admission standards -- which will lead to a need for more K-12 teachers to prepare students for college admission.

Effective July 1983, the advanced professional certificate (see Table VI) will no longer be issued. Inservice requirements will be mandated for all certificated personnel, effective 1985-86 (Table VII). Declining enrollment, along with some teacher shortages, is occurring in the state (Table VIII).

Tennessee

The governor proposed to the legislature in 1983 a comprehensive Better Schools Program, to be financed by a sales tax increase. Some of the provisions included programs for basic skills, computer skills and increased mathematics and science requirements for high school. The heart of the proposal is the Master Teacher-Master Administrator Program (see Table XI). The proposal (though tabled in the recent legislative session) is being studied by a legislative interim committee.

Planned inservice activities are a requirement for all school districts (Table VII). Some teacher shortages, especially in mathematics, are being experienced (Table VIII).

Texas

New classifications of teaching certificates will become effective May 1, 1986: a three-year provisional certificate, renewable one time; a seven-year standard certificate, renewable indefinitely, with three years' teaching and 12 graduate credits; and a professional certificate, valid for life, with M.A. or Ph.D.

Local Cooperative Teacher Education Centers are a joint effort of IHEs, local school districts and professional organizations. Their functions include studying teacher education program needs, and enhancing the experiences of student teachers (see Table VII).

Inservice is mandated for all instructional personnel (Table VII); and mathematics and science teacher shortages are a major problem (Table VIII).

Utah

In January 1983, the governor proposed an action plan for quality elementary and secondary education entitled "Solving the School Crisis Phase II." Recommendations for changes in many areas of teacher preparation, certification and on-the-job training were suggested (see Tables IV and IX). Also recommended were an examination of higher education teacher training programs; procedures for recruiting more and better candidates into the teaching profession; and incentives for students to become trained in critical need areas such as mathematics and science teaching, similar to the existing scholarship program (Table VII).

Training and retraining of teachers in critical need areas is also a concern in the state (Tables VII and VIII). Inservice by both the state department and local districts is a priority activity (Table VII). Some teacher shortages and expanding enrollments are being experienced (Table VIII).

Vermont

A new state-funded loan program has been established to encourage teacher candidates to acquire training in mathematics and science (see Table VII). The University of Vermont has a new program to train nonteaching professionals as mathematics and science teachers (Table VIII). There is a growing emphasis on inservice -- including a state program to help school districts design relevant inservice offerings for their personnel, state department sponsored workshops and administrator development opportunities (Table VII). Teacher shortages are occurring in several fields, including mathematics and science (Table VIII).

Virginia

In 1982, the General Assembly requested a study of differential pay for outstanding teaching performance. Final recommendations from a task force appointed by the governor are expected in fall 1983. The governor's 1984-86 budget will include funding to pilot test several performance-based plans (see Table XI).

The state is currently field testing a program to evaluate beginning teachers (Table IV). A number of state-sponsored inservice/workshop activities are held for teachers and principals around the state (Table VII). Four IHEs are conducting a program to retrain teachers from other fields for mathematics teaching proficiency (Table VIII). Special education retraining is also available (Table VIII). Teacher shortages are found in several fields, and may be exacerbated with increased high school graduation requirements (Table VIII).

Washington

Staff development and inservice have received a great deal of attention in Washington. The following are examples: a portion of certification fees are earmarked for designing model inservice programs; there is a statewide council to coordinate and disseminate information about inservice; "Project Leadership" offers workshops for administrators; and the legislature recently allocated funds for mathematics, science and computer technology inservice programs (see Table VII).

The legislature also recently enacted a loan program for students training to become mathematics and science teachers (Table VII). Teacher shortages are found in several fields -- including science, mathematics and industrial arts (Table VIII).

West Virginia

The legislature, in its latest session, appropriated funds to develop a test for initial teacher certification (beginning September 1, 1985). The test, to be administered within an approved college program, will cover three areas: professional literacy (e.g., basic skills as they relate to particular teaching fields); content areas (specifically the level of knowledge needed for particular subjects and grades); and a performance rating to be carried out during college training, including student teaching. Furthermore, the state is considering an on-the-job internship of one or two years (see Tables III and IV).

The state board is designing a retraining program for persons already holding college degrees to become mathematics, science or special education teachers (Table VIII). A "merit pay" proposal is being formulated in West Virginia (Table XI), and staff development is an integral part of the state board's standards for education quality (Table VII). Teacher shortages have emerged in special education, speech pathology, mathematics and science (Table VIII).

Wisconsin

The state superintendent of public instruction has appointed a Task Force on Teaching and Teacher Education. Among topics being considered is the possibility of providing incentives to students to train as mathematics and science teachers. The final report of the task force is due on December 20, 1983.

The state superintendent will submit to the legislature in the fall of 1983 several proposals. These include: (1) retraining teachers in mathematics and science (see Table VIII); (2) scholarships to undergraduates for preparation as science and mathematics teachers (Table VII); and (3) a master teacher plan for involvement in both preservice and inservice mathematics and science activities (Table XI).

The state department of education has studied the possibility of requiring an additional year of training (i.e., a fifth year) beyond the four-year teacher preparation program.

Some teacher shortages in several areas have been noted; mathematics and science, however, are not a critical problem at this time (Table VIII).

Wyoming

The superintendent of public instruction has appointed a task force to look at the quality and goals of education. This is in response to the issues raised in the report of the National Commission on Excellence in Education. Other task forces and the legislature are looking at issues of school accreditation, finance of schools, curriculum and program equity. Because of Wyoming's strong tradition of local control, some of these issues have not been examined in depth on a statewide basis.

The University of Wyoming, which has the only teacher preparation program in the state, has revised its program standards (see Table II). The legislature has recently supported the concept of retraining teachers for skills in high-demand subjects like mathematics and science (Table VIII). The state department requires districts to integrate their inservice offerings with other types of activities in their district master plans (Table VII). Some teacher shortages may develop in the future (Table VIII).

Table I

STANDARDS FOR TEACHER TRAINING PROGRAMS AT STATE INSTITUTIONS OF HIGHER EDUCATION

	Type of Program		
	Program/ Course	Competency	Who Sets Standards
Alabama	X		State board (teacher training programs evaluated every five years).
Alaska			Regional accrediting body — NASDTEC standards. IHE program reviewed every two years by SEA.
Arizona	X	Demonstration of skills to be required in 1985.	State board
Arkansas	X		SEA using NCATE standards
California	X	X	Commission on Teacher Credentialing; also IHE
Colorado	X	optional CBTE	State board
Connecticut		CBTE used	IHE sets standards with SEA assistance.
Delaware	X		State board--NASDTEC standards. Also accredited by regional association.
Florida	X	X	Legislature, state board, SEA and IHE
Georgia	X (syllabi must include skills)		A process evaluation using SEA or NCATE standards.
Hawaii	X		SEA — NASDTEC and other standards; IHE also involved.

Table I (Continued)
STANDARDS FOR TEACHER TRAINING PROGRAMS
AT STATE INSTITUTIONS OF HIGHER EDUCATION

	Type of Program		
	Program/ Course	Competency	Who Sets Standards
Idaho			SEA — NASDTEC standards
Illinois			State board
Indiana	X		SEA — NASDTEC standards
Iowa	X	X	State board and SEA
Kansas	X	X	State board -- with advice from Teaching Standards Board and Admissions Standards Board
Kentucky	X	X including CBTE	State board, SEA, IHE
Louisiana	X	X	IHE and SEA
Maine			State board; general standards only
Maryland	X	X	SEA — NASDTEC standards; also IHE
Massachusetts		X (5 major competency areas)	State board
Michigan	X		State board
Minnesota	X	X	Standards by Board of Teaching
Mississippi	X	X (23 generic competencies)	State board and board of higher learning set standards
Missouri	X	X	State board
Montana	X	X	State board standards; SEA evaluations

Table I (Continued)
STANDARDS FOR TEACHER TRAINING PROGRAMS AT STATE INSTITUTIONS OF HIGHER EDUCATION

	Type of Program		
	Program/ Course	Competency	Who Sets Standards
Nebraska	X		State board
Nevada	X	X	State board (standards being studied)
New Hampshire	X	X	State board. Criteria to approve program is a list of competencies.
New Jersey	X		State board; NASDTEC standards.
New Mexico	X		State board and IHE
New York	X		SEA sets standards
North Carolina		X	State board; new standards adopted July 1, 1983.
North Dakota			Board of higher education approves teacher training programs in public IHEs, using NCATE standards
Ohio	X	CBTE optional	State board and SEA approve IHE program
Oklahoma			State board sets minimum standards; includes requirement for faculty at IHE to be involved in the professional development program. (Standards being redesigned)
Oregon		IHE must identify student competency outcomes	Teacher commission sets standards and evaluates

Table I (Continued)
STANDARDS FOR TEACHER TRAINING PROGRAMS AT STATE INSTITUTIONS OF HIGHER EDUCATION

	Type of Program		
	Program/ Course	Competency	Who Sets Standards
Pennsylvania	X	X	State board sets standards; SEA reviews IHE every 5 years
Rhode Island			NASDTEC standards used -- state department approves programs and resources of IHE
South Carolina			State board -- NASDTEC standards
South Dakota			State board standards. Task force studying standards
Tennessee	X	Competency mandate for five fields	State board
Texas	X	Competency at IHE discretion	State board -- upon recommendation of 16-member Commission on Standards for the Teaching Profession
Utah		X	State board -- NASDTEC standards
Vermont		X	State board -- NASDTEC or state standards
Virginia	X (competencies are part of course requirements)		State board; SEA evaluates every five years
Washington	X	X	State board
West Virginia	X	X	State board

Table I (Continued)
STANDARDS FOR TEACHER TRAINING PROGRAMS AT STATE INSTITUTIONS OF HIGHER EDUCATION

	Type of Program		
	Program/ Course	Competency	Who Sets Standards
Wisconsin	X	Individual programs may be CBTE	SEA developing standards using NASDTEC standards as a guide. (NOTE: Wisconsin has no state board)
Wyoming	X		National or regional accreditation

Table II

ADMISSION STANDARDS FOR STUDENTS IN TEACHER TRAINING PROGRAMS

	Qualifying GPA	Standardized Test Scores	Other Tests	Other Information
Alabama	X	X (ACT or SAT)	X (English language proficiency)	Applicant screening interview
Alaska				IHE has own screening process, including interviews of applicants.
Arizona	X	X (basic skills component of Arizona Teacher Proficiency Examination)		Selection is IHE responsibility
Arkansas				IHE must specify admission criteria. SEA approves program using NCATE standards.
California				Admission standards must be comparable to other professions
Colorado	X set by IHE	X (Basic skills via California Achievement Test)		Counseling for candidates; ongoing student evaluation
Connecticut				Selection is IHE responsibility
Delaware	X set by IHE			GPA minimum set by IHE.
Florida	X set by IHE	X	X standards set by IHE	Candidate screening by IHE

Table II (Continued)

ADMISSION STANDARDS FOR STUDENTS IN TEACHER TRAINING PROGRAMS

	Qualifying GPA	Standardized Test Scores	Other Tests	Other Information
Georgia	X		X Regents schools; language proficiency	SEA has full-time recruiter
Hawaii	X	tests being discussed		Selection is IHE responsibility. IHE does own recruitment to teacher education.
Idaho				Selection is IHE responsibility
Illinois				Currently, IHE is responsible. State Board study recommends heightened standards.
Indiana				Study being conducted by state board.
Iowa				IHE must make admissions policies public.
Kansas	X (Board of Regents requires GPA for state schools)		X (Basic skills testing implemented by Board of Regents for state schools)	IHE must publish admission and evaluation standards
Kentucky	X		X	Candidate counseling. SEA reviews IHE selection standards.
Louisiana	X			Candidate counseling

Table II (Continued)

ADMISSION STANDARDS FOR STUDENTS IN TEACHER TRAINING PROGRAMS

	Qualifying GPA	Standardized Test Scores	Other Tests	Other Information
Maine				Selection is IHE responsibility
Maryland				GPA and testing under consideration by state board
Massachusetts				IHEs set own standards. SEA conducting a study.
Michigan	Qualifying GPA for student teaching only			IHE must insure qualified candidates.
Minnesota				IHE sets own admission policies
Mississippi		X (battery of tests)		Admitted to teacher education program in sophomore year.
Missouri			X	Test data will be used to set minimum standards
Montana	X	X		IHE sets own cut-off points
Nebraska	X			IHE sets selection criteria & minimum GPA. Student counseling must include supply and demand information.
Nevada	X	X		Admission criteria being reevaluated; possibility of 3.3 GPA requirement by 2nd year of training.

Table II (Continued)

ADMISSION STANDARDS FOR STUDENTS IN TEACHER TRAINING PROGRAMS

	Qualifying GPA	Standardized Test Scores	Other Tests	Other Information
New Hampshire		Being considered by state board		IHE sets standards based on student qualifications
New Jersey	X	X	X (basic skills)	Counseling & evaluation of teacher education students done by IHE. Admission to teacher training in junior year.
New Mexico			X (covers reading, writing and mathematics)	IHE selects tests and selection criteria. State board approves.
New York				IHEs publish own selection criteria
North Carolina		X (NTE: core battery I and II)		Testing is effective Spring 1984. Admissions counseling is required.
North Dakota				IHEs establish own admissions policies.
Ohio				IHEs must set admission criteria and procedures
Oklahoma	X		X	New state law on GPA minimum, competency screening by IHE, and interviewing of candidates.

Table II (Continued)

ADMISSION STANDARDS FOR STUDENTS IN TEACHER TRAINING PROGRAMS

	Qualifying GPA	Standardized Test Scores	Other Tests	Other Information
Oregon	X (requirement established by IHEs)			All IHEs voluntarily use California Achievement Test for admission.
Pennsylvania				IHEs do own selection. SEA reviews.
Rhode Island				IHE sets standards; SEA would like to establish criteria
South Carolina			X (reading, writing, mathematics)	IHE provides counseling to students
South Dakota				Task force is studying standards
Tennessee	X (established by IHE)	X (California Achievement Test)		IHEs must provide comprehensive counseling, including career counseling
Texas	X		Effective 1984, professional skills test required in math, reading, writing.	IHE may exceed minimum GPA. IHE must provide entry counseling.

Table II (Continued)

ADMISSION STANDARDS FOR STUDENTS IN TEACHER TRAINING PROGRAMS

	Qualifying GPA	Standardized Test Scores	Other Tests	Other Information
Utah	X		X (basic skills)	IHE sets GPA minimum and qualifying score for tests. IHE does counseling and recruitment.
Vermont	X		X	IHE sets minimum GPA and provides career counseling.
Virginia	X	Testing recommended by state board and higher education board		IHE publishes admission standards.
Washington				State board sets broad admissions standards in writing, computation and oral communication; within these standards IHE sets own guidelines.
West Virginia	X			IHE does admission and guidance
Wisconsin				SEA prefers GPA requirements to be set by IHE. SEA studying recruitment.
Wyoming		X (California Achievement Test)		University of Wyoming has new standards

Table III

REQUIREMENTS FOR GRADUATION FROM A TEACHER TRAINING PROGRAM AND FOR INITIAL CERTIFICATION

			Teacher Competency Testing		Required Experience	
	Required Coursework/ Programs	GPA	State Test	NTE	Student Teaching	Further Training
Alabama	X	X	X		X	
Alaska	X					
Arizona	X	X	X (Arizona Teacher Proficiency Exam: covers basic skills and professional knowledge)		X (or 2 years' teaching experience at appropriate grade levels)	X (see Table IV)
Arkansas	X	X		X	X	
California	X		X (basic skills)	X	X	Voluntary program, see Table IV
Colorado	X	X	X (basic skills)		X	
Connecticut	X		Testing to be implemented by fall 1985.		X	
Delaware	X		X (basic skills)		X	
Florida	X (for high school teaching, 30 hours required in upper division specialized courses, effective August 1985)		X (basic skills with writing sample, and professional education)		X	X (see Table IV)

Table III (Continued)
REQUIREMENTS FOR GRADUATION FROM A TEACHER TRAINING PROGRAM AND FOR INITIAL CERTIFICATION

	Required Coursework/ Programs	GPA	Teacher Competency Testing: State Test	Teacher Competency Testing: NTE	Required Experience: Student Teaching	Required Experience: Further Training
Georgia	X	X	X' (measures content knowledge)		X	X (see Table IV)
Hawaii	X	X			X	X (see Table IV)
Idaho	X	X			X	
Illinois	X				X (see Table IV)	
Indiana	X		State board studying possibility		X	
Iowa	X				X	
Kansas	X	X	State board wants to develop test		X (early field experience also, see Table IV)	
Kentucky	X	X	Being considered; see Table IV		X	Being considered, see Table IV
Louisiana	X	X		X	X (early experience also required, see Table IV)	
Maine	X				X	Being considered, see Table IV

Table III (Continued)
REQUIREMENTS FOR GRADUATION FROM A TEACHER TRAINING PROGRAM AND FOR INITIAL CERTIFICATION

			Teacher Competency Testing		Required Experience	
	Required Coursework/ Programs	GPA	State Test	NTE	Student Teaching	Further Training
Maryland		Being considered.	Being considered.	Some IHEs require NTE.		Being considered, see Table IV
Massachusetts	X				X (300 hours and must demonstrate competencies)	See Table IV
Michigan	X				X	Being considered, see Table IV
Minnesota	X				X	
Mississippi	X (3 areas: general education, professional and specialty)	X (set by board of higher learning)	X	X	X	Being planned, see Table IV
Missouri	X	X			X	
Montana	X	X			X	
Nebraska	X				X	
Nevada	X Effective 1984, core requirement will be mandated		Skills testing being considered		X	Being considered, see Table IV
New Hampshire	X		Testing requirements being considered.		X	

Table III (Continued)
REQUIREMENTS FOR GRADUATION FROM A TEACHER TRAINING PROGRAM AND FOR INITIAL CERTIFICATION

	Required Coursework/ Programs	GPA	Teacher Competency Testing		Required Experience	
			State Test	NTE	Student Teaching	Further Training
New Jersey	X	X	IHE must select a test		X (early experience also, see Table IV)	Being considered, see Table IV
New Mexico	X		X	X (effective July 1, 1983)	X	
New York	X			X (planned for 1984)	X	
North Carolina	Set by IHE			NTE or GRE	X	X (See Table IV)
North Dakota	X	X (IHEs require GPA)	Testing possibility under review.		X	
Ohio	X		Advisory commission studying requirements		X (early field experience also required; see Table IV)	
Oklahoma	X	X	X (in every subject for which certification is desired)			X (see Table IV)
Oregon	X		Basic skills test under consideration		X (performance based)	
Pennsylvania	X		SEA reviewing testing possibilities		X	

Table III (Continued)

REQUIREMENTS FOR GRADUATION FROM A TEACHER TRAINING PROGRAM AND FOR INITIAL CERTIFICATION

			Teacher Competency Testing		Required Experience	
	Required Coursework/ Programs	GPA	State Test	NTE	Student Teaching	Further Training
Rhode Island	X		SEA reviewing testing possibility; NASDTEC standards mandate some type of exit requirement		X	
South Carolina	X		X (for specialized areas not covered by NTE)	X	X (see Table IV)	X (see Table IV)
South Dakota	X		Task force studying standards		X	
Tennessee	X			X	X (early experience also, see Table IV)	
Texas	X		Effective 1986, new content area examination required		X (see Table X)	
Utah	X		Considering testing		X (see Table IV)	Being considered, see Table IV
Vermont	X				X	
Virginia	X	X		X (validation study will determine score by July 1984)	X	X (see Table IV)

Table III (Continued)
REQUIREMENTS FOR GRADUATION FROM A TEACHER TRAINING PROGRAM AND FOR INITIAL CERTIFICATION

			Teacher Competency Testing		Required Experience	
	Required Coursework/ Programs	GPA	State Test	NTE	Student Teaching	Further Training
Washington	IHE validates mastery of skills		Legislature has requested IHEs to examine testing possibilities		X (see Table IV)	
West Virginia	X		Test being developed for implementation in September 1985.		X	Being considered, (see Table IV).
Wisconsin	X				X	
Wyoming	X				X	

Table IV

POST-GRADUATION TRAINING REQUIRED FOR CERTIFICATION; FIELD EXPERIENCE PRIOR TO STUDENT TEACHING

Arizona	Currently, a program of first-year on-the-job evaluations of teachers is being pilot tested in 14 districts. By 1985, all new teachers will be supervised and observed by master teachers, and they must demonstrate proficiency in 14 skill areas to receive a certificate.
California	The new education bill (SB 813) creates a program to provide beginning teachers with assistance, guidance and training. This support will come through mentor teachers (see Table XI). Districts, however, are not reuqired to participate in this beginning teacher program.
Florida	The 1978 legislature passed a bill stating that one requirement for the initial (regular) teaching certificate is successful completion of a year-long beginning teacher program. The purpose is to provide beginning teachers with supervised support and professional development activities. Beginning teachers must be evaluated for demonstration of a number of generic competencies through a "performance measurement system" formulated in the state. There is an extensive program of workshops and materials to train evaluators of beginning teachers. Funding for this Beginning Teacher Program is $1.70 per FTE student (out of a total of $6.00 per FTE for staff development activities in the districts). The 1982 legislature appropriated funds to train administrators, and teacher education centers and universities also receive funding to participate. Evaluations of the program and validation of the performance measurement instrument are planned. The 1983 legislature appropriated $500,000 additional funding for improvement of internship programs in the public universities.
Georgia	"Performance-Based Certification" has two aspects: (1) the criterion-referenced test

Table IV (Continued)

POST-GRADUATION TRAINING REQUIRED FOR CERTIFICATION; FIELD EXPERIENCE PRIOR TO STUDENT TEACHING

	listed in Table III which measures subject matter knowledge and (2) on-the-job assessment. For the latter, anyone who graduates from an approved teacher training program can be certified for three years in Georgia. The new teacher is assessed by three individuals: the principal or other administrator, a peer teacher and an external data collector (from one of 17 regional assessment centers in the state). Each of these people evaluates the new teacher's portfolio of 7 to 10 days' plans and materials, and then observes the teacher in the classroom. Evaluation (through the Teacher Performance Assessment Instruments) is based on 14 essential competencies (which are scored using 45 indicators). In addition to teaching plans, these include classroom procedures and interpersonal skills. Assessments are scheduled in the fall and in the spring with interim staff development based on needs shown in the first assessment. Upon demonstration of all 14 competencies, a performance-based certificate is awarded which provides for an increase up to two-steps on the state salary index. Some teachers (27%) pass all competencies in the first assessment.
Hawaii	After graduation from an approved program, a two-year provisional certificate is awarded. Performance is observed frequently by the principal or other designated person, and new teachers are given other additional assistance.
Illinois	Prior to student teaching, 100 hours of clinical experience is required. This involves both observing and interacting in a classroom situation. This early experience helps students decide more carefully their career choices.
Kansas	Beginning in 1985, both elementary and secondary candidates must participate in early field experiences before admission into the teacher training program. All secondary education students must have reading in the content area.

Table IV (Continued)

POST-GRADUATION TRAINING REQUIRED FOR CERTIFICATION; FIELD EXPERIENCE PRIOR TO STUDENT TEACHING

Kentucky	A recent study commission composed of administrators, teachers and lay people appointed by the state superintendent recommended that students in teacher education be required to pass a test covering basic skills, subject area knowledge and professional skills. After passing the test, a one-year certificate would be given. Careful supervision (by a three-member team which would include a supervising teacher) and staff development would be provided for the beginning teacher. A legislative mandate and funding (including extra pay for the supervising teacher) will be needed to implement this program.
Louisiana	The teacher education program must include practical experience in actual classroom situations during a student's sophomore year. It must also include field experiences in schools of varied socioeconomic and cultural characteristics.
Maine	A plan has been drafted requiring initial two-year certification, during which the new teacher would be evaluated and participate in development activities. The state board has hired a consulting agency to hold statewide hearings on the plan with members of the higher education community, the state department of education and local school systems. All three groups support the concept of the plan, but questions remain on such issues as funding and evaluation procedures. If remaining problems are resolved, implementation is scheduled before 1987, with pilot testing and master teacher (evaluator) training in the interim.
Maryland	The recent "Commission on Quality Teaching" recommended that the beginning teacher receive professional assistance and support in the first year, and be evaluated for effective teaching skills the second year. If performance is acceptable, the teacher would then receive full certification.

Table IV (Continued)

POST-GRADUATION TRAINING REQUIRED FOR CERTIFICATION;
FIELD EXPERIENCE PRIOR TO STUDENT TEACHING

Massachusetts	There is an inclusion in the statutes that teacher candidates receive a two-year provisional certificate, and be assessed by a team of evaluators during their first two years of teaching. However, this law has never been implemented.
Michigan	The state board is reviewing the possibility of a two- to three-year probationary period for beginning teachers. This is part of the "Proposed State System for Educational Personnel Development."
Mississippi	A provision in the reform act of 1982 requires that beginning teachers (and administrators) receive on-the-job evaluations during a one-year provisional period. By 1984, a plan must be formulated -- including tests and observational instruments -- and then be pilot tested.
Nevada	The state department, universities and local school systems are currently undertaking a combined planning effort on the issue of teacher competency. Under consideration is a supervised initial teaching year, which may be considered an extension of the teacher training program leading to full certification. During this initial year, new teachers would be supervised by a master teacher.
New Jersey	The governor has recommended that new teachers complete a one-year supervised internship (along with proven competency shown by a state examination). Before admission to the teacher training program in their junior year, education students must have had practical school experience.
North Carolina	The Quality Assurance Program has been adopted by the state board of education and the university board of governors as a framework

Table IV (Continued)

POST-GRADUATION TRAINING REQUIRED FOR CERTIFICATION; FIELD EXPERIENCE PRIOR TO STUDENT TEACHING

	for revising teacher training and certification procedures. A two-year initial certificate will be issued to beginning teachers, effective in 1984. During the first two years new teachers will be evaluated and provided with a support system. Plans are underway to train evaluators, etc., for this beginning teacher program.
Ohio	Field experiences, "beginning early and continuing in a sequential manner," are required for all teacher education students. Forty-five of the state's 48 teacher training institutions begin this in the freshman year. Students work with cooperating teachers at the school site, and are supervised by college faculty.
Oklahoma	Initially, a license is issued to new teachers for the first year of teaching -- which is a year of supervised internship, including evaluations and staff development experiences. Regular certification is awarded after successful completion of the year (if needed, one renewal of the license is possible).
South Carolina	After graduation from an approved teacher training program, and meeting all certification requirements, a teacher may be employed on a one-year provisional contract. During this initial year, beginning teachers are evaluated on three occasions by three trained observers -- usually a peer teacher, a building administrator and a district administrator. Results of the evaluations are reviewed with the teacher and, if needed, programs are developed to help the new teacher remedy deficiencies. (If necessary, the provisional contract can be renewed one more year.) The evaluation instrument has been standardized for a set of behaviors which new teachers must demonstrate. Furthermore, this same instrument

Table IV (Continued)

POST-GRADUATION TRAINING REQUIRED FOR CERTIFICATION; FIELD EXPERIENCE PRIOR TO STUDENT TEACHING

	is used to evaluate student teachers (i.e., before graduation). Student teachers also receive help for deficiencies.
Tennessee	Student teaching must be preceded by directed observation in a field setting.
Utah	The governor's plan, "Solving the School Crisis Phase II," calls for more training and rewards for supervisors of student teachers; and also for more support (i.e., inservice and consultation) of beginning teachers. Coupled with this second idea is a recommendation for another stage of certification after two or three years, which would include performance reviews and evaluations.
Virginia	Beginning July 1, 1984, the state will issue two-year, nonrenewable provisional certificates to beginning teachers. During this initial two years, an evaluation team will assess the new teacher's performance on seven major competencies. Currently, three models for the program are being field tested.
Washington	Prior to graduation, the state board of education requires that all student teachers have at least eight weeks of student teaching. However, many IHE programs exceed the state minimum. First year teachers are classified as "provisional" employees; the local board of directors are authorized to renew or nonrenew such employees. If nonrenewed, such decisions shall be final and not subject to appeal.
West Virginia	The possibility of a beginning teacher program (during first and possibly second year of teaching) for training/evaluation is being considered.

Table V

INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL

	Initial Certificate: Class & Length	Renewal			
		Additional Credits or Degree	Teaching Experience	Evaluations	Inservice Training
Alabama	Basic/ 8 years	9 credits	OR 4 years		X (in lieu of credits)
Alaska	Initial/ 5 years	6 credits			
Arizona	Basic/ 6 years	5 credits	OR Satisfactory and continuous teaching		(NOTE: foreign travel for thesis may be used toward certificate renewal)
Arkansas	Standard/ 6 years (10 years with Master's)	6 credits	OR 2 years (or 1 year if during last year of certificate's life)		
California	Preliminary/ 5 years				
Colorado	Initial/ 5 years	6 semester credits			X (may be used in lieu of 4 credits, see Table VII)
Connecticut	Initial/ 10 years				
Delaware	Initial standard/ 5 years				

Table V (Continued)

INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL

	Initial Certi- ficate: Class & Length	Renewal			
		Additional Credits or Degree	Teaching Experience	Evaluations	Inservice Training
Florida	Regular/ 5 years (after completion of the beginning teacher program)	6 credits			X (in lieu of credits)
Georgia	Renewable Certificate/ 5-10 years (after performance-based certification of 3 years completed)	10 credits			X (in lieu of credits)
Hawaii	Basic/ life		Continuous teaching		
Idaho	Standard/ 5 years	Standard certificate renewable but no specific requirements			
Illinois	Standard/ 4 years	Renewable every four years through registration and fees payment.			
Indiana	Initial/ 5 years	12 credits			
Iowa	Profes- sional/ 10 years	6 credits	1 year		X (in lieu 1/2 of credits)
Kansas	Initial/ 3 years				
Kentucky	Initial/ 10 years	Masters or 32 credits (This is a 5th-year planned program)			X (in lieu of some credits)

Table V (Continued)

INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL

	Initial Certificate: Class & Length	Renewal			
		Additional Credits or Degree	Teaching Experience	Evaluations	Inservice Training
Louisiana	Type C/ 3 years	6 credits			
Maine	Provisional/ 5 years	6 credits (several renewals possible -- except one renewal only for special education, administrator, guidance and learning disability certificates)			X (in lieu of credits, see Table VII)
Maryland	Standard/ 5 years	6 credits (only one renewal)			X (in lieu of credits)
Massachusetts	Permanent				
Michigan	Provisional/ 6 years	If provisional expires before attainment of continuing certificate, provisional may be renewed for 3 years with 10 additional credits (2nd renewal of 3 years available after completing 18 credits)			

Table V (Continued)

INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL

	Initial Certificate: Class & Length	Renewal			
		Additional Credits or Degree	Teaching Experience	Evaluations	Inservice Training
Minnesota	Initial/ 2 years		1 year		
Mississippi	Class A/ 5 years	6 credits			X (in lieu of 3 credits)
Missouri	Initial/ for life				
Montana	Initial/ 5 years	6 credits			X (in lieu of credits)
Nebraska	Pre-Standard/ 5 years	6 credits			
Nevada	Initial/ 5 years	6 credits		X (after one year -- done by a peer)	
New Hampshire	Beginner/ 3 years				
New Jersey	Permanent				Under consideration
New Mexico	Standard I/ 4 years	8 credits		Being planned	X (in lieu of 4 credits)
	Standard II/ 4 years	30 credits or M.A.	3 years	Being planned	X (in lieu of credits)
New York	Provisional/ 5 years				

Table V (Continued)

INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL

	Initial Certificate: Class & Length	Renewal			
		Additional Credits or Degree	Teaching Experience	Evaluations	Inservice Training
North Carolina	Continuing/ 3 years (awarded after 2-year beginning teacher program. The continuing certificate is then renewable for 5-year periods.)	9 credits	Some teaching possible in lieu of credits		X (in lieu of some credits)
North Dakota	Entrance/ 2 years				
Ohio	Provisional/ 4 years	6 credits OR	Successful teaching		
Oklahoma	Standard/ 5 years	8 credits OR	3 years		
Oregon	Basic/ 3 years	5th year for high school teachers and special education teachers. Otherwise, 9 credits OR	1 year successful experience		Can be required at local district discretion
Pennsylvania	Initial/ 6 years (not renewable)				

Table V (Continued)

INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL

	Initial Certificate: Class & Length	Renewal			
		Additional Credits or Degree	Teaching Experience	Evaluations	Inservice Training
Rhode Island	Provisional/ 4-6 years				
South Carolina	Standard/ 5 years	6 credits			X (in lieu of some credits)
South Dakota	Basic/ 5 years	6 credits			X (in lieu of three credits)
Tennessee	Professional/ 10 years	8 credits	5 years	X (required by state board at local level)	X (in lieu of some credits)
Texas	Provisional/ life	New classifications effective 1986, see Highlights section.			
Utah	Basic Professional/ 5 years	6 credits OR	3 years		
Vermont	First regular/ effective until 3 years experience gained				
Virginia	Collegiate Professional/ 5 years	6 credits	Successful teaching experience		X (in lieu of three credits)

Table V (Continued)

INITIAL CERTIFICATE AND REQUIREMENTS FOR RENEWAL

	Initial Certificate: Class & Length	Renewal			
		Additional Credits or Degree	Teaching Experience	Evaluations	Inservice Training
Washington	Initial/ 4 years	Additional credits, varies with IHE. Teacher must be formally enrolled in a planned continuing level program.			
West Virginia	Initial/ 3 years	6 credits		X	
Wisconsin	Regular/ 5 years	6 credits			X (in lieu of credits)
Wyoming	Initial/ 5 years	5 credits			X (in lieu of credits)

Table VI

REQUIREMENTS TO OBTAIN ADVANCED CERTIFICATE

	Class and Length	Additional Course Credit or Degree	Teaching Experience	Evaluations	Inservice Training
Alabama	A/10 yrs	Masters Degree (coursework must be in subject area of actual teaching to receive pay increase)	1 year		
Arizona	Standard/ 6 yrs	M.A. or 30 credits	(NOTE: In 1985, initial certificate for 8 years; then teacher must obtain M.A. or 40 additional credits.)		
Arkansas	Continuing/ for as long as person teaches and six years thereafter				
California	Clear/ 5 yrs	5th year of study		Under consideration	
	Life/ Permanent		2 years		
Colorado	Advanced/ 5 years	M.A.	3 years		
Connecticut	Standard	30 credits or M.A.	3 years (last 2 years must be consecutive)		X (in lieu of credits)

Table VI (Continued)

REQUIREMENTS TO OBTAIN ADVANCED CERTIFICATE

	Class and Length	Additional Course Credit or Degree	Teaching Experience	Evaluations	Inservice Training
Delaware	Professional status certificate/ for as long as person teaches in same area		3 years		
Georgia	T5/ 5 yrs	M.A.			
	TS6	EDS	3 years		
	D7	Ph.D.	3 years		
Hawaii	Professional/ life	5th year teacher education or M.A. in teacher education			
Idaho	Advanced/ 5th	M.A. or 5th year			
Indiana	Permanent	M.A.	3 years		
Iowa	Permanent	M.A.	4 years		
Kansas	5-year certificate/ renewable with additional credits		2 years on initial certificate in endorsed field.		Note: renewal, requirements depend on the degree held by the teacher. Some state approved inservice credits can be applied toward renewal.

Table VI (Continued)

REQUIREMENTS TO OBTAIN ADVANCED CERTIFICATE

	Class and Length	Additional Course Credit or Degree	Teaching Experience	Evaluations	Inservice Training
Kentucky	Permanent	(Initial renewal required)	3 years		
Louisiana	A	M.A.	5 years		
	B		3 years (in certified field)		
Maine	Professional/ 10 years	30 credits (at least half in the field for which certified)	4 years		
Maryland	Advanced professional/ 10 years	M.A. or 30 credits	3 years		X (in lieu of up to 15 credits)
Michigan	Continuing/ Permanent	18 credits	3 years successful teaching		
Minnesota	Continuing/ 5 years				See Table VII
Mississippi	AA/10	M.A.	2 years		
	AAA/10 years	Ph.D. or 45 hours	3 years		
	AAAA	Ph.D.	5 years		
Montana	Professional	M.A.	3 years		
Nebraska	Standard/ 7 years		2 years		
	Professional/ 10 years	M.A. or 5th year	4 years		

Table VI (Continued)

REQUIREMENTS TO OBTAIN ADVANCED CERTIFICATE

	Class and Length	Additional Course Credit or Degree	Teaching Experience	Evaluations	Inservice Training
Nevada	Graduate certificates	Masters, Doctorate, or Specialist	3 years	Semi-annually by the administration	X (in lieu of credits)
New Hampshire	Experienced educator		3 years		Inservice required for renewal of experienced credential (see Table VII)
New Mexico	5 year continuing	30 credits	3 years	Being planned	X (in lieu of 8 credits)
	10 year continuing	M.A.	3 years	Being planned	
New York	Permanent	Masters Degree	2 years		
North Dakota	Renewable Certificate/ 5 years	4 semester credits	2 years	Semi-annually by the administration	
Ohio	Professional/ 8 years	18 credits	27 months under provisional certificate		
	Permanent	M.A.	45 months under professional certificate		

Table VI (Continued)

REQUIREMENTS TO OBTAIN ADVANCED CERTIFICATE

	Class and Length	Additional Course Credit or Degree	Teaching Experience	Evaluations	Inservice Training
Oklahoma	Full certificate		1 year	X	
Oregon	Standard/ 5 years	45 credits (includes professional education and subject matter)	2 years successful experience in Oregon on basic certificate	X (by school district personnel)	
Pennsylvania	Permanent	24 credits	3 years		X(in lieu of credits)
Rhode Island	Professional/ life	M.A. or 36 credits	3 years		
South Carolina	Professional/ 5 years				
	Class II	18 credits			
	Class I	Masters			
	Class I (Specialist)	Masters plus 30 credits			
	Class I (advanced)	Ph.D.			
South Dakota	Advanced Professional	M.A. or 30 credits	5 years		
Texas	New classifications effective 1986, see Highlights section				
Utah	Professional/ 5 years	M.A. or 36 credits	3 years		X(in lieu of experience)
Vermont	Continuing/ 7 years		3 years successful experience	X	

Table VI (Continued)

REQUIREMENTS TO OBTAIN ADVANCED CERTIFICATE

	Class and Length	Additional Course Credit or Degree	Teaching Experience	Evaluations	Inservice Training
Virginia	Post-graduate Collegiate professional/ 5 years	Masters or Ph.D.	3 years		
Washington	Continuing/ for as long as one teaches	45 quarter hours	3 years		
West Virginia	Permanent	M.A.	5 years	X	
	Permanent		18 years (During this time, a 5-year certificate has been renewed 3 times.)		
Wyoming	Professional/ 10 years	M.A.	5 years		

Table VII

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

Alabama	All local districts must submit inservice plans (to the state department of education) with three areas of focus: systemwide, school level and individual (i.e., teacher, administrator, etc.). Inservice offerings are based on locally defined needs; local districts provide most of the funding. Some local districts also cooperate with nearby colleges for their inservice offerings. The state department also has a leadership training program for administrators. Teachers are eligible to participate for part of the training needed to become administrators.
Alaska	Most local school districts require individual staff development programs. Assistance from the state department for district inservice programs is available. (All districts are allocated 10 inservice days per year.) Areas of state technical assistance include the right-to-read program and techniques for teaching basic skills, and bilingual and vocational education. Based on recommendations in the report of "The Governor's Task Force on Effective Schooling," a pilot program for leadership team training is being initiated in several schools. Teams (consisting of the principal, teachers and a representative from the district office) are trained to provide leadership for the Alaska Effective Schooling Program. The state department develops and provides training to these teams.
Arizona	Staff from the state department of education are available to local school districts for assistance with district-organized inservice activities. (Some districts have very comprehensive inservice programs.) In the 1984 legislative session, legislation will be introduced supporting the development of a Principals' Institute for school building administrators.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

Arkansas	"The Arkansas Academy of School Executives," begun by SEA in 1981, focuses on problem solving for executive-level personnel (superintendents, assistant superintendents, business managers, principals, supervisors). Topics include innovative/exemplary administrative practices and emerging issues in education; and the academy serves as a forum to exchange ideas. Fifteen seminars (with 306 total participants) were held around the state in 1981-82. The voluntary "Program for Effective Teaching," (PET) begun by the SEA in 1979, concentrates on improving the skills of K-12 teachers and college of education professors; and also the supervisory skills of school district and SEA personnel. The main focus -- instructional skills -- is taught and practiced during a 25-day cycle which includes periods of observed instruction followed by conferences. (Followup and feedback continue after initial training.) PET training has reached 42% of teachers, 70% of elementary and secondary principals, 61% of local districts and 76% of IHEs with four-year teacher education programs. Furthermore, there are 425 PET instructors in the state who provide inservice and help maintain or expand the program.
California	Approximately 55 different state initiatives include some aspect of staff development. Therefore, inservice is offered through a variety of sources, including teacher centers, resource centers, professional development centers, county offices, district offices and colleges and universities. One program of special interest is that offered by 15 regional Teacher Education and Computer Centers. Staff development is provided in all curriculum areas, but 60% of the centers' funds must be used for mathematics, science and computer skills development. Nineteen million dollars is budgeted for these centers; they work coopeatively with universities to develop programs, and also do outreach to business and industry.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	The state has conducted the "California Staff Development Study," commissioned by the department of education, to both collect information and make recommendations on staff development. The new education bill (SB 813) has several provisions for staff development and inservice. Individual teachers are directly affected by one new requirement: all persons obtaining a clear teaching credential after September 1, 1985, must complete 150 hours of continuing education within each five-year period to maintain the credential. Another SB 813 provision calls for funds for training programs to improve principals' skills in evaluating and assisting teachers. Mini-grants to teachers of up to $2,000 per year for classroom instructional improvement is another provision of SB 813.
Colorado	State department staff are available to districts for technical assistance for inservice programs. Up to four inservice credits, if approved by the state department of education, may be used toward renewal of certification (for both teachers and administrators). There are also several other options for certificate renewal, including leaves-of-absence for on-the-job experience (which must be approved by the local district) or travel experiences (which must be approved by the state department of education) -- both of which must be deemed as significant for increasing teaching skills. Supervision of student teachers and individually designed development experiences may also be used for certification renewal.
Connecticut	The state department can provide consultants to local districts for staff development. For certification purposes, district superintendents may have inservice programs approved by the state department.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	For administrators (superintendents, other central office personnel and school principals), a five-year professional development plan was proposed in 1980. Its goals include creating a professional development network, developing a resource guide and providing development experiences to administrators in all school districts.
Delaware	The state coordinates a large offering of inservice programs -- which are conducted by the state and district staff, and by the Teacher Center. The state publishes a list of approved inservice programs which can be used as part of the credit requirements for advancing on the statewide salary schedule. A recent task force, appointed by the state board at the request of the governor, recommended administrator training in the ability to lead and evaluate. The Management Institute was formed in 1981 to provide training to administrators in effective use of time and resources.
Florida	Teachers are required to participate in inservice education, which is funded by the state at $6 per FTE student. Each district submits (to the state department) for approval an inservice plan -- a major component of this plan is the beginning teacher program (see Table IV). Inservice offerings are based on the needs of the district's teachers, and based on "effective teaching" research. Inservice offerings are also coordinated with annual evaluations of all teachers and principals. Inservice programs are required if specific needs of staff are identified. Each district, or combination of several districts, has a "teacher education center" which identifies inservice needs and evaluates the results of programs. These centers have advisory councils made up of teachers and administrators.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	The 1983 legislature appropriated $1 million for 1983-84 to provide school principals with inservice training relating to performance evaluation of instructional personnel. For administrators (superintendents, principals, etc.), the Florida Academy for School Leaders offers institutes at various locations in the state on topics such as management, planning, curriculum and community relations. In addition, several individual districts have designed their own training programs for administrators -- and some have used school improvement funds for this purpose.
Georgia	Inservice/staff development offerings are based on a local needs assessment. Funding for inservice is provided at the rate of $12 per experienced teacher, and $50 for a beginning teacher (the latter is in connection with performance-based evaluation and development -- see Table IV). There is some possibility of raising the funding levels for inservice. The Georgia Academy for Administrators (funded with $100,000) provides workshops and seminars on various topics, e.g., stress management, planning, budgeting and assisting teachers with management and discipline. All new principals receive training at this academy. Furthermore, at the inception of the performance-based certification system, all principals received one week of training in methods of evaluating new teachers using the Teacher Performance Assessment Instruments. (Now, the 17 regional assessment centers do followup training on the performance-based assessments.)
Hawaii	The focus of inservice is on all types of school employees: teachers, principals, aides, secretaries, cafeteria workers, reading specialists, etc. For all of these areas there is a state staff person who is in charge of the program and who can arrange technical assistance for implementing state programs in schools. Colleges also offer a series of courses which are equivalent to inservice

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	training. Inservice credit can be applied toward salary increments, but is not specifically tied to certification renewal. Principals and teachers are often enrolled in the same inservice courses. The philosophy of the inservice offerings is often effective schools/teaching, or the "early provision for success in schools" model which focuses on kindergarten through grade 3. Although Hawaii has only one statewide school system, there are seven administrative districts. Each district has an Inservice Training Advisory Council to advise on types of inservice that are needed. The state department has a new "Project for Assessing Teachers in Hawaii." Each teacher plans an individual program which can be based on a selection from over 300 performance objectives. Principals and teachers meet at least two times per year to identify needs and to chart the individualized program. Furthermore, principals observe teachers frequently and then hold followup conferences. A teacher's advancement on the salary schedule is dependent on a satisfactory rating. The Education Management Training Program is a workshop and on-the-job program to train teachers to become administrators (see Table XI).
Idaho	The statewide "Commission on Excellence" recently recommended that all teachers should receive six hours of inservice every five years. Currently, the state encourages local school districts to offer inservice programs, and provides technical assistance. For administrators there is a statewide renewal program wherein they form collegial teams to develop plans and ideas, and then use these ideas to provide stronger leadership to the schools and the district.
Illinois	All local school districts provide inservice/staff development to their teachers.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	Regional state education agency staff are available to provide technical assistance, and regional superintendents conduct workshops to improve teacher competency. The state department assists with a data base of resources such as consultants and information on effective programs. Universities and teacher centers also offer inservice training. For administrators, the state department is developing a Principals' Academy.
	The state board study (see Highlights) recommended "organizational staff development," i.e., improvement of the human rsources (teachers, administrators, service personnel) in a district as part of the entire process of meeting district-defined goals. The study also recommended that the state board seek funding for staff development, and included a recommendation for a program for beginning and reentering professionals. All personnel would be required to complete staff development for certification renewal. The study also recommended the establishment of an academy for the development of administrators (including a funding proposal for it) which would focus on improved expertise in the area of personnel evaluation.
Indiana	Local school districts design and offer their own inservice programs. State department staff can be called upon for assistance or consultation.
	In the area of computers, the legislature passed -- effective July 1, 1983 -- an appropriation of $6 million for training teachers to use computers in instructional activities. There will probably be an introduction program for all (or most) teachers; and a more intensive course for a fewer number of teachers. A "Consortium for Computer Technology," composed of the chief state school officer and appointees of the governor and legislature, will set up policies for distribution of the funds.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

Iowa	One of the three major functions of the 15 Area Education Agencies in the state is that of providing inservice. The agencies publish a catalog of courses; included must be programs for specific topics (such as reading or use of the curriculum guides) that meet the stated needs of the local school districts. Local districts and universities also offer inservice. The state department of education must approve the inservice if it is to be applied toward meeting requirements for certificate renewal.
Kansas	New state board regulations, effective May 1, 1983, permit voluntary participation of districts in the new Kansas Inservice Education State Plan (for all certified personnel). The local school district will prepare a five-year plan (with goals and objectives) using guidelines prepared by the state department of education, but based on local needs. Also, districts must establish a professional development council, and develop criteria to evaluate the inservice. The state department approves plans and acts in a facilitator role, including leadership training. Approved programs can be used toward certificate renewal. Funding is through existing district monies; the legislature has not provided extra funds. Six districts already participate in the program; and many others are doing a needs assessment to prepare to participate in the near future. A team of educators has traveled around the state talking about effective schools/teaching research that relates to this inservice effort. The legislature discussed, but did not enact, a program to award classroom improvement grants (on a competitive basis) to teachers.
Kentucky	Each school system (district) is allocated four days for inservice each year. The local district develops a master plan for inservice,

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE
FOR TEACHERS; FOR ADMINISTRATORS

	including a calendar of activities based on locally determined needs, which is submitted to the state department for approval. State department staff are available for technical assistance to districts; and the state department maintains a library and other types of resources. (The education improvement plan of districts must be coordinated with their master inservice plan.)
Louisiana	Funding is provided for two days of paid inservice for educators. The training is based on local needs and is designed by teachers and principals. In addition, the state has a voluntary "Professional Improvement Program" which provides salary enhancements earned through participation in individually planned staff development programs (see Table XI).
Maine	Local school districts plan (and provide funding for) staff development programs, and they can request assistance from the state department for help in areas such as needs assessment, problem solving, resource contacts and evaluation. Inservice programs are one option through which teachers may renew their provisional certificates. Other options are also available, including travel. The state department evaluates and approves each teacher's individual renewal plan. In some instances, the school district can acquire responsibility for renewing its own teachers' certificates, i.e., teachers who are regularly certified. To do this, the local staff development committee must receive state department approval for its certificate renewal program. (The state department reviews the district's program every two years.) For three years the state has operated a Principals' Academy, which conducts workshops

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	each summer for approximately 25 selected participants (both principals and other administrators).
Maryland	Maryland has fairly large school districts, and many of them offer extensive inservice programs. The state department also offers approximatley 90 inservices per year around the state. There is, in addition, a statewide inservice counsel (with representatives from all districts and the state department) which coordinates and disseminates information on inservice offerings. Since inservice is not required per se after the advanced certificate is obtained, the goal is to make the programs as attractive as possible in order to encourage participation. There are two Professional Development Centers in the state (located in two large counties) which offer teachers inservice programs to meet the local needs. Teachers have input into the program planning. For administrators (including principals) the Maryland Professional Development Academy (part of the state department) has conducted, since 1977-78, summer training institutes. A total of 1,000 have participated in week-long sessions to improve skills, with two-day followup sessions in the fall and spring. Administrators can also apply for grants to implement ideas in their own systems. Topics in 1982 covered, among others, assessment of teacher effectiveness, special education and disruptive youth. The "Commission on Quality Teaching" made several staff development recommendations. The state board will implement one recommendation by submitting to the governor a request for a 1% add-on to state aid allocations for inservice (this will equal a total of $4 million). The Commission also recommended intensive training in teacher evaluation for principals and supervisors, development by local districts of long-range inservice plans, establishment of a clearinghouse of staff

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	development resources, and formation of local professional development advisory councils.
Massachusetts	The Commonwealth Inservice Institute provides grants (mainly to teachers but also to administrators) for development of programs that respond to specific needs of a school. Funded with state and foundation monies, the institute provides initial help in the form of dollars or technical assistance for participants to develop their own problem-solving capabilities. The program has shown steady growth since its inception in 1978.
Michigan	There is an entitlement of a specific dollar amount for each teacher in a district for inservice purposes. The district staff develop and implement inservice programs based on local needs. A "Proposed State System for Educational Personnel Development," being reviewed by the state board, includes an extensive discussion of the need to enhance professional develement activities (such as inservice), and make them part of a total plan of individual training -- from initial college program onward throughout a teacher's entire career. For administrators, especially superintendents, one intermediate district has provided flow-through grant money to the Michigan Association of School Administrators to conduct workshops for the last two years. The focus in the first year was the impact of declining revenues on schools, and the current year's focus is on use of the computer for management purposes. Sessions are offered at several regional sites. Approximately 150 administrators (or more) have participated each year; half the cost is borne by the individual and half by the grant monies. At least two other large districts (or counties) have year-round administrator academies.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE
FOR TEACHERS; FOR ADMINISTRATORS

Minnesota	Traditionally, inservice has been offered by districts based on their own needs assessment. The state department and regional units can offer technical assistance in various areas such as personnel growth, organizational development, etc. Teachers holding the continuing certificate (license) are required to renew it every five years with 120 units. These units can be obtained through inservice, or through 19 other possible activities such as college credit, publications or being a supervising teacher. The new law, "Technology and Educational Improvement," includes several provisions for inservice: (1) $50,000 for inservice training in science, mathematics and social studies (with other target areas to be added). Districts apply for grants to implement a project; (2) pilot testing of 20 models for inservice training based on school effectiveness research. For this component $350,000 is budgeted; (3) a high technology component ($4.1 million budgeted) which includes a plan for districts to apply for grants for inservice training in technology. A 15-member advisory committee -- which includes representatives from business, teachers, parents, etc. -- advises this high technology component.
Mississippi	According to the reform act of 1982, by 1984-85 every school district must submit a Comprehensive Inservice Staff Development Plan. The state board will request funds from the legislature to be allocated to districts with approved plans. A portion of the funds must be used for staff development of beginning teachers. Currently, the state department staff are available for technical assistance and will continue to be. Also, the state department works with the Mississippi Educational Television Authority in a new effort to broadcast inservice programs for teachers.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	The reform act of 1982 establishes a School Executive Management Institute (to be in place by 1984). This institute will assess training needs in the area of management, and then design and conduct programs. All local administrators will be required to participate.
Missouri	The state department provides technical assistance (especially for curriculum) to local school districts that are implementing the voluntary Instructional Management System. The focus is to help teachers organize instruction, and is based on effective teaching research.
Montana	The state department of education is engaged in an effort to coordinate inservice offerings of all state agencies, e.g., colleges, human services, etc. The state department publishes a schedule of inservices for the whole state so that districts will be aware of what is planned. The state department also maintains a talent bank, which is a listing of resource people who are "experts" in various fields (including teachers, but also others such as environmentalists) who can be called upon for workshop presentations, consulting, etc. Both of these state department activities focus on better utilization of existing resources; they do not involve the infusion of new money. The state allows seven inservice days per teacher each year. Some of this time, however, is spent on other activities such as conferences; and the state department would like more time devoted to workshops, etc. The state of Montana conducts administrator workshops. The state always provided new administrator orientation; this has now expanded to workshops for both new and experienced administrators with a variety of foci, such as problem-solving. (Northwest Laboratories is now involved.) The rationale

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	is based on the research on effective schools and community involvement.
Nebraska	School districts in the state plan and offer inservice, with technical assistance (if requested by the district) available from the state department of education. In some districts, inservice participation is tied to salary advances for teachers. The ongoing task force on education quality (appointed by the state commissioner of education) is looking at the current inservice offerings, and the possibility of more involvement by the state department.
Nevada	The state department is involved in both technical assistance to districts and providing workshops on various topics in central locations in the state. Inservice can be used toward salary increases. A Principalship Improvement Project conducts workshops on instructional management skills for principals.
New Hampshire	All teachers, principals and other administrators must participate in a district staff development program. Renewal of the experienced credential is based on at least 50 hours of inservice every three years. Districts approve the individual teacher/administrator plans, making sure that these plans conform to district needs and goals as outlined in the district master plan. The master plan (including inservice plans) is then submitted to the state department for approval. The plans are approved based on state guidelines; inservice programs, however, are locally funded and implemented. The principals' association and the superintendent of public education have plans to begin a special inservice program for principals. The school administrators'

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	association also has ongoing programs/inservices for staff development.
New Jersey	The state department of education and county offices have reorganized in an attempt to assess more clearly the inservice needs of schools, and also to design and offer program packages to meet these needs. There are also three new Regional Curriculum Service Units which will function as brokers between schools and the state department regarding inservice. More emphasis is being placed on mathematics/science inservice to upgrade skills of current teachers in these fields. This was part of the recommendations of the Advisory Council on Mathematics/Science Teacher Supply and Demand (see Table X). Also recommended was more emphasis by IHEs on mathematics and science training, including inservice.
New Mexico	Local school districts formulate and offer their own inservice programs, based on their local needs assessment. If districts wish to offer inservice for credit, state approval is necessary. Currently, many districts are focusing on inservice for computer use. The state department has three teams which visit each district approximately once every five years.
New York	Almost all inservice offerings are designed, funded and implemented at the local level. For several years funds have been requested (though not allocated to date) from the legislature for development of state guidelines for comprehensive inservice planning -- especially to help districts through staff training. The state department, however, neither requires nor approves local inservice offerings; they feel that inservice should be "attractive" to teachers, but not mandated.
North Carolina	The state approves the local district inservice programs. Local districts require teachers to

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	participate, and credit toward certificate renewal can be earned. Some state funding is earmarked specifically for inservice. In addition, some summer institutes are offered jointly by the state board of education and the board of governors (for higher education). A Principals' Institute offers staff development activities for administrators which include the following: (1) regional and statewide staff development seminars in time and stress management, performance appraisal, improved management, discipline, clinical supervision, leadership, the administrative team and legal updates; (2) short-term internships which allow principals to visit other schools and exchange ideas; (3) business/industry liaison program that provides opportunities for principals and assistant principals to attend business/industry seminars; (4) two television series on staff development related to the needs of principals and teachers.
North Dakota	Inservice is offered mainly through local level initiative. State department staff are available for some technical assistance; however, there are no state guidelines or approval procedures for local inservice programs. In the past there were funds for more state department involvement, such as networking and coordinating, but funding for this is now limited.
Ohio	Local school districts plan and fund their own inservice programs. State department approval is not required. However, the state board of education has recently adopted new standards for administrators that include "continuing education units." Teacher certification is being studied for scheduled revisions by 1985. Continuing education is likely to be a future requirement for teachers to maintain certification.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

Oklahoma	Every school district submits an inservice plan to the state department for approval. The department reviews plans carefully and makes many recommendations. This plan is prepared by a local staff development committee (composed of teachers mainly, but also principals and parents). All teachers must participate in inservice, and the state mandates for each teacher at least 75 hours of inservice every five years. The state funds district inservice programs at the rate of $2.50 per student per year. The state department also has extensive technical assistance capabilities within all of its various divisions that are available to districts. Furthermore, the state prepares yearly a catalog of workshops (e.g., in teaching reading, etc.), and districts can request workshops for their teachers. Although state-level inservice activities are extensive, the emphasis is still on local planning to meet local needs.
Oregon	Inservice is planned and implemented at the local level. The state department does not mandate that inservice be offered, but does have resources available -- such as consultants -- for technical assistance to districts.
Pennsylvania	In order to be accredited, the district must have an approved long-range school improvement plan that is based on a local needs assessment -- and personnel development is a required component. The state department assists districts with long-range planning, and also establishes guidelines for inservice for credit. One of these guidelines is the setting up of inservice councils composed of teachers, administrators, board and community members, and IHE representatives. The state also operates a Pennsylvania Executive Academy in Harrisburg. A series of seminars (several days in length) are offered to not only administrators, but also to

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	teachers. (Sometimes teachers and administrators from the same district are trained as a team.) Topics cover management, problem solving and other special interest concerns.
Rhode Island	There is a large commitment to inservice in the state. In the 1970s, the state department conducted a number of pilot programs and coordinated/organized the inservice offerings. This emphasis on quality inservice has continued, although the only major state-sponsored and funded effort remaining is in special education. State department staff are available, however, for technical assistance to districts.
South Carolina	Local school districts plan and implement their own inservice programs. State funding provides to districts $10 per teacher per year for this purpose. State department staff can provide some technical assistance; recently, emphasis has been placed on assistance for basic skills teaching. Teachers can use inservice credit toward continuing certificate renewal. The state department (along with the University of South Carolina and one school district) operates the Administrators' Leadership Academy, begun in 1981, which offers training mainly for superintendents, principals and vocational center directors. Workshops are presented in five regional locations on three main topics: management skills, problem-solving and current issues. Other services include a consultant listing and a resource library. The philosophy for the academy is that of effective schools, which emphasizes the key role of administrators. The increasing complexity of school administration and the need for more training were other factors in establishing the academy. There is also a separate assessment program to evaluate those training to become principals. Working with the National Association of Secondary School Principals, the focus is to

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	improve leadership and management at the <ins>building</ins> level.
South Dakota	New state board inservice regulations will take effect in 1985 and 1986. All certificated staff (teachers and administrators) will be required to have at least 15 hours per year -- even those holding advanced certificates. Districts will be required to file inservice/workshop plans, which will be tied to school accreditation. If districts do not comply, they could lose state aid. Currently, the Local Field Site Program of the state department offers approximately 12 regional inservice workshops -- spaced throughout the year at various locations in the state.
Tennessee	All school districts through a local planning committee develop a comprehensive inservice plan -- based on state guidelines, and also on carefully assessed district improvement needs. State department staff review the plans and suggest revisions if needed. After approval, districts then offer their planned programs. In addition to the guidelines (which were established within the last four years), state department staff also observe and participate when possible in inservice. In addition to the central office, state services are provided through nine regional development centers. For teachers, 10 days are allowed each year for inservice or other developmental activities. Administrators participate in local inservice activities; and, in addition, local study councils composed of principals, superintendents, supervisors, etc. operate around the state to provide input to state-level policy makers. Once each year this group holds a statewide conference -- attended by several hundred people.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	The proposed Master Teacher/Administrator Program would set up a Principal-Administrator Academy for training in leadership for educational effectiveness.
Texas	Fifty-three Local Cooperative Teacher Education Centers (LCTEC) are operating in the state, with the overall purpose of facilitating cooperative planning and development in teacher education. A major focus is that of providing support to student teachers, and to school-based supervisors of student teachers (i.e., supervising teachers). LCTEC activities are funded currently at $.5 million -- which is mainly from federal block grant monies. Furthermore, the state allocates $200 salary stipends to supervising teachers, and $50 per student teacher to districts to cover support costs. In 1982-83, LCTECs (with the participation of IHEs) focused on several general issues: computer literacy of student teachers and supervising teachers; improved inservice to supervising teachers; selective recruitment of supervising teachers to improve the "teacher image;" and programs to improve the basic skills (mathematics, reading, writing) of student teachers. (NOTE: LCTECs have authority to formulate programs for administrators; so far, this has not been done.) In addition to LCTECs, the state mandates inservice for all instructional staff of seven days per year. Districts formulate their inservice plans based on at least the minimum requirements found in state guidelines -- but also based on local needs, and local funding. The state department reviews these plans; however, this is not a formal approval process.
Utah	The state department offers a large variety of inservice activities -- both on a regional basis and also for individual districts.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	Districts also sponsor their own workshops, etc. The state or the district usually pays stipends or travel expenses of participating teachers; teacher attendance, however, is voluntary. An "Inservice Program for Principals," funded at $75,000, focuses on improving leadership skills. Participation is voluntary, but incentives are offered in the form of stipends and transportation expenses.
Vermont	The state board recently approved an inservice institute which will help individual school districts design inservice tailored to their own goals and needs. (The state, however, does not formally approve district inservice programs.) The state department of education has 12 to 15 consultants in a number of subject areas who are available to districts. Furthermore, the state department offers one-week inservice workshops at several sites around the state on topics of general interest, e.g., teaching of reading. Travel expenses of teachers are usually paid to attend these workshops. To renew their continuing certificate, teachers and administrators must acquire nine credits of "activity" every seven years. This activity can include inservice if the individual gets prior approval for credit of a particular workshop, etc. (College extension courses are widely used for certificate renewal.) Administrators can renew their certificates through a management development institute at the University of Vermont. The American Association of School Administrators also offers workshops.
Virginia	The state sponsors a number of inservice activities, which can be applied toward certificte renewal. As part of the Standards of Quality program, the state department conducts curriculum and assessment workshops in

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	the statewide curriculum content areas -- mathematics, science, social studies, physical education, etc. Teachers who have participated in these workshops then hold followup inservices in their own districts to further disseminate the information. State department staff are also available to do workshops on curriculum in individual districts. In addition, special education is a particular focus. Workshops are held and a catalog of special education competencies is being developed. Another state department activity is the Rural Schools Project. Teachers and principals from 22 districts participate in summer workshops (and later followup activities) to improve their abilities to deal with small-school problems. For the past three summers a state-funded Principals' Institute has operated one- or two-week sessions. Each summer approximately 150 principals, who are selected from nominees of the districts, study issues such as evaluation, performance appraisal and management.
Washington	The state is organized into nine regional Educational Service Districts (ESDs); inservice is a major function of these ESDs. Each ESD establishes an inservice committee which is responsible for coordinating model staff development/inservice programs within the ESD. Funding for this model program development is from a portion of certification fees collected in the state, and is in addition to other regular inservice funding. At the state level, a Staff Development Council was formed in 1982-83. It is composed of representatives from IHEs, ESDs, professional associations (such as teachers' unions and administrator organizations), and local district groups. Its purpose is to coordinate staff development; activities include a statewide conference and various publications. This is a communication and support network.

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

Its goals include the establishment of a state clearinghouse of staff development information, the training of leaders of staff development, and providing technical assistance.

The state legislature recently appropriated $250,000 for inservice programs specifically designed for mathematics, science and computer technology. The money will be distributed to school districts through a grants process. Districts must form advisory committees (composed of teachers, administrators and IHE representatives), and then submit a grant proposal. The inservice grant money is specifically targeted for people already teaching in these fields, and is not a retraining program. The program is both for secondary teachers, and for elementary teachers involved in mathematics, science, etc.

The legislature has also established regional computer demonstration centers which are responsible for providing training, technical assistance, hardware comparison and software evaluation for K-12 teachers.

For administrators, the Washington Association of School Administrators sponsors Project Leadership. Participants attend two two-day workshops, with approximately four followup workshops during the year. Participants are also encouraged to conduct followup implementation in their own districts. A range of topics are covered, such as goal setting, time management, problem solving, stress, evaluation strategies, current legislation, etc. Registration fees of $210 per person are charged.

The School Principals Association is involved in staff development/inservice programs for principals.

West Virginia

Staff development in school districts is part of the entire needs assessment process, and is one of 12 areas of focus -- along with curriculum, finance, instruction, community relations, etc. The state board has adopted a

Table VII (Continued)

STAFF DEVELOPMENT/INSERVICE FOR TEACHERS; FOR ADMINISTRATORS

	policy which designates three instructional days per year for "continuing education." Specific topics for these inservice days are based on the district's needs assessment. The state department monitors the program; and each district has a council (composed of teachers, higher education personnel, etc.) which directs the program. The state department (Office of Educational Personnel Development) assigns a team of three people to each district.
Wisconsin	Wisconsin state law requires inservice for all teachers. If inservice credit is to be applied toward certificate renewal, the inservice must be approved by the state department of education.
Wyoming	Local districts file with the state department master plans of their activities. Included are staff development/inservice programs, and the state encourages these to be based on local needs and integrated into the overall long-range plan. The state specifically approves any inservice offering which teachers can use toward certification renewal. Districts may obtain assistance, such as consultants or in-kind services, from the state department for their inservice activities. A 1979 regulation requires that all new and veteran teachers acquire two credit hours in each of three fields: special education, reading and human relations. This is a state requirement based on local district needs. Inservice for administrators has been discussed; and there is a task force looking into the possibility.

Table VIII

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

Alabama	Mathematics and the sciences (especially physics and chemistry) are areas with teacher shortages in Alabama. Other factors impinging on the situation of teachers include the recently adopted use of admission tests (ACT or SAT) -- which may reduce the number who can qualify. At the same time, teacher salaries -- which have been raised somewhat -- are still below the national average. In the science and mathematics areas, potential teachers are sometimes recruited by industry.
Alaska	Alaska is experiencing teacher shortages in speech pathology and some categories of special education; mathematics and science are not a major problem as in many other states. Population and hence, student enrollment, is increasing in the more populated areas around Anchorage. Rural areas have a more stable enrollment picture.
Arizona	Teacher shortages are not in evidence at this time; however, mathematics and science may experience some shortages in the future (especially in rural areas).
Arkansas	Mathematics and several science areas (chemistry, physics, general science and earth science) exhibit shortages. In the area of English, half the number of teacher candidates are preparing now as compared to 10 years ago.
California	California has several areas of teacher shortages: mathematics, science, bilingual and special education. It is possible that, in the future, shortages "across the board" may develop. Student enrollment is projected to increase in grades K-8 between 1983 and 1991. In this same period, grades 9-12 enrollment will decline slightly, but begin to grow thereafter.

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

Colorado	The number of graduates from teacher education training programs has dropped by one-half overall in the past 10 years; the number of mathematics teacher graduates has dropped by three-fourths. The state department of education has appointed a task force to examine the mathematics shortage. Teacher shortages are also found in chemistry and physics.
Connecticut	The shortage of physics teachers is great; only one person graduated as a physics teacher in Connecticut last year. Other critical shortages are in the areas of industrial arts and speech pathology. As in many other states, speech pathologists in Connecticut are required to have a Master's degree. Small towns in particular find it difficult to attract speech pathologists. Homemaking teachers may also be in short supply in the future.
Delaware	Although student enrollment is declining generally in the state, industrial arts is one area with teacher shortages. It is also difficult for districts to find occupational and physical therapists, and school psychologists. There is a predicted shortage of mathematics teachers because of a proposal to raise high school graduation standards. The problem of shortages is tied to both geography (rural areas have more problems), and to salary (some wealthy districts can augment considerably the state salary schedule).
Florida	Unlike other states in the country, Florida has not experienced declining school enrollments. The state's school population has been stable and is now growing at approximately 2% per year. Florida needs 6,000 new teachers each year and the majority come from out of state. Current teacher shortages are evidenced in mathematics, science, foreign language, and some areas of special and vocational education.

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	More teachers will probably be needed with the recent legislative enactment of minimum high school graduation requirements. The state department is beginning a "teach in Florida" publicity campaign, and will help local school districts with teacher recruiting.
Georgia	Teacher shortages exist in several areas: science (biology, chemistry and physics), mathematics, industrial arts, speech pathology and some fields of special education. An indication of the extent of the shortage is that last year there were emergency certificates issued -- 353 for mathematics and 512 for science -- to teachers who did not have the minimum preparation requirements.
Hawaii	Areas of major teacher shortages include science (especially physics and chemistry), mathematics, agriculture and bilingual education; also, there is a need for school counselors. Student enrollment is declining in the 11th and 12th grades in certain subjects such as foreign language and mathematics. Overall, student population on the island of Oahu is declining slightly -- but is fairly stable on the other islands.
Idaho	The major teacher shortages are in the areas of mathematics and special education.
Illinois	Teacher shortages in Illinois do not appear to have reached a critical point. There are relative shortages in mathematics, natural sciences, special education and industrial/vocational education. Oversupply is found in the social sciences, elementary teaching, and physical and business education. It is interesting to note that many teaching vacancies are filled by those reentering the profession after a period of not teaching. For example, 64% of vacancies were filled by returning teachers in 1981-82 and 65.5% of

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	vacancies were filled by returning teachers in 1982-83. This is one reason that the state board study (see Highlights) put emphasis on the need for inservice/staff development of veteran teachers. (The average age of teachers in Illinois is 40.) Student enrollment in public schools peaked in the 1970s -- i.e., 1976-77 for high school and 1970-71 for elementary grades. The low point in high school enrollment is expected in 1990-91. By 1985-86, elementary enrollment will begin to increase somewhat.
Indiana	Teacher shortages are being experienced in mathematics and some areas of science (chemistry, physics and general science). When high school graduation requirements are upgraded in 1986, there will probably be an even greater need for mathematics, science and also foreign language teachers.
Iowa	Mathematics and some areas of science are experiencing teacher shortages.
Kansas	Teacher shortages exist in some areas of science, mathematics, industrial arts and special education. Interestingly, there is also some evidence of English teacher shortages. New high school graduation requirements may also have repercussions on staffing needs; i.e., more teachers will be needed to cover the increased number of course requirements for students to graduate.
Kentucky	In most fields the supply of teachers is fairly adequate. There is, however, a shortage of physics teachers; and some emergency certificates are issued in special education indicating a shortage in that area also.
Louisiana	Subject areas with teacher shortages include mathematics, industrial arts, foreign languages, special education and some areas of science (physics, chemistry and earth science).

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	Interestingly, elementary teachers are also in short supply, and the problem may be enhanced with an expected increase in elementary enrollments in the next few years. The overall situation in the state shows a total of 834 teachers without certification in the subjects they are teaching.
Maine	Many special education positions are filled by people who are still working toward full certification. Speech and hearing teachers are in especially short supply, and a grants program is in effect to help with training (see Table X). Industrial arts is another area of critical shortage. Although considered "adequate" now, shortages of mathematics and science teachers are predicted. Student enrollment has been declining -- although not drastically. This trend is predicted to reverse itself in the next decade.
Maryland	Teacher shortages exist in many of the science fields (except biology). The severe mathematics shortage is indicated by data showing that 50,000 children receive mathematics instruction from teachers who do not have mathematics certificates. In 1982, no chemistry or physics teachers and only 17 mathematics teachers were prepared in Maryland's IHEs. The state recognizes the need for more information, and is currently conducting a supply-and-demand study of teachers.
Massachusetts	There are current shortages in some areas of special education, and in industrial arts. Projected shortages in mathematics and science have led to development of the Mathematics/Science/Technology Project (see Table X). Student enrollment is declining in the high schools; the decline may be leveling off in the elementary grades.

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

Michigan	There are a few areas of teacher shortage -- i.e., vocational, bilingual and some areas of special education. Interestingly, the state has not experienced shortages in mathematics and science. The enrollment picture is one of continuous decline. In the future, elementary enrollments may stabilize; but the increase expected in other states is not foreseen for Michigan.
Minnesota	There are some shortages of mathematics and science teachers. Because elementary enrollment may increase in the next two years, there may be a demand for more elementary teachers which will continue through the 1980s. Secondary enrollment has passed the mid-point of its decline and may start to increase in the early 1990s. Concomitantly, the large number of teachers retiring in the next few years may lead to a surprising demand for teachers.
Mississippi	Projections of teacher shortages suggest problems in the short-term for chemistry and physics, and possibly general science. Mathematics and industrial arts teachers are also in short supply. As an example of the shortage, less than 100 of the 216 chemistry teachers in the state are fully certified.
Missouri	Teacher shortages are found in mathematics, most of the science fields, and the industrial arts area. The state is also beginning to experience a shortage of English teachers. This latter shortage will probably continue because the number of students being trained as English teachers has dropped by 40% in the last few years. Rural areas continue to have a larger problem with teacher recruitment than urban areas. Student enrollment in Missouri shows a situation similar to many other states. Elementary school population has started to

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	increase somewhat. High school population will level off by the mid-1980s and then increase gradually in the early 1990s.
Montana	The "best opportunities" in Montana are in industrial arts, agriculture, music, mathematics -- and elementary education in some of the rural areas. The student enrollment picture tends to fluctuate, especially in rural coal-producing areas due to changing economic demands. The city of Billings, however, is experiencing some increase in enrollment.
Nebraska	Shortages of teachers in mathematics and some of the science fields are found in the state.
Nevada	There are teacher shortages in mathematics and some science fields, especially chemistry and physics. Student enrollment pressures are especially noticeable in Las Vegas where the population is increasing; year-round schools are being considered.
New Hampshire	Teacher shortages exist in mathematics, several science fields (chemistry, physics, earth science and general science), industrial arts, and speech and hearing. Although the number of openings in teaching positions for mathematics and science has declined somewhat, during the last two years emergency teaching certificates have been issued in these fields. Student enrollment is declining, although not sharply. Between 1981 and 1982, there was a decline of 2% overall.
New Jersey	Several teaching areas currently exhibit shortages: handicapped, mathematics, science, bilingual and vocational education. Part of this problem may be due to placement, a topic addressed in the Advisory Council recommendations (see Table X).

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	Regarding supply/demand, the Advisory Council on Mathematics/Science Supply and Demand noted the following: (1) there is a statewide shortage of science teachers; (2) the pool of mathematics teachers is not adequate to allow school districts to be selective in choosing among candidates to hire; (3) a large number of teachers, especially in mathematics, have substandard certification; (4) the shortfall of mathematics and science teachers is primarily in the least affluent districts; and (5) few students in New Jersey colleges are currently majoring in mathematics and science education.
New Mexico	Mathematics and the sciences are areas with teacher shortages; in 1982-83 over 20 teachers in each of these fields were not fully certified. Special education teachers, especially for the gifted, are also in short supply.
New York	Shortages in science and mathematics have been noted, but they are not considered critical at this time. Regarding enrollment, projections of public high school graduates show an expected drop of 300,000 between 1981 and 1989. Private schools, on the other hand, should maintain their current rate of graduates.
North Carolina	Mathematics, science and vocational education are areas with teacher shortages; projections indicate that these may become critical in the future. Student K-12 enrollment may begin to show an increase by 1990. In conjunction with this, a decrease has been noted in the number of college students in teacher preparation programs.
North Dakota	Real shortages of teachers are not in evidence at this time due, in part, to the current economic situation which keeps teachers in the profession. However, a recent supply/demand study shows mathematics as the first possible shortage area, followed by special education.

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	In connection with supply/demand, North Dakota Job Service operates a job placement service for teachers. Student enrollment, which has declined generally in the last few years, may now have stablized. A few coal-producing regions have even shown some growth.
Ohio	The supply of teachers appears to be the least adequate in industrial arts, mathematics, vocational education, library science and several of the special education areas. The physical sciences also show some shortage problems. Student enrollment has declined in the last decade. In the next decade, the elementary grades will experience an increase, and high school will show a fairly significant enrollment decrease.
Oklahoma	Shortages are noted in some fields of science and in mathematics. Other areas with large numbers of teacher vacancies include elementary education, special education, language arts, social studies, health, physical education and school counselor.
Oregon	Subject areas with teacher shortages include mathematics, physics, chemistry, special education and psychology. There are also demographic factors which cause shortages, such as the rural interior of the state. Although student enrollment has declined in the past, a reversal of this trend is beginning, especially in the elementary grades. Enrollment increases, combined with the current teacher shortage (and also fewer numbers in college teacher preparation programs), may lead to even greater teacher shortages in the future.
Pennsylvania	There is a critical shortage of physics teachers; other shortages are occurring in

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	chemistry, industrial arts and some areas of special education. Furthermore, many emergency certificates are issued for English and social studies teachers. Small rural areas, and also some large wealthy districts, have problems attracting teachers. In the latter case, potential teachers are often attracted into industry. Generally, student enrollment is projected to decline. By 1987, however, the elementary decline may level off.
Rhode Island	Teacher shortages are not considered to be critical in any fields -- especially in light of extreme declining enrollment (particularly at the secondary level). Some teachers who lose their jobs can get, fairly quickly, additional certification for other specialities.
South Carolina	As in many other states, shortages of mathematics and science teachers are occurring in South Carolina. Other fields also experiencing shortages are library science, special education, English and elementary education. Student enrollment is expected to increase in the next few years because of a general population increase in the state -- due, in part, to South Carolina's favorable geographic location.
South Dakota	Shortages are most severe in physics and industrial arts. Interestingly, the mathematics shortage is only moderate -- possibly because only 18 units are needed to be certified to teach mathematics. Even though student enrollment is declining, the need for teachers is fairly consistent.
Tennessee	The area of greatest teacher shortage is mathematics. Spot shortages, especially in rural areas, have been noted in special education, speech pathology and industrial

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

	arts. Severe shortages in many fields are predicted in the next five years.
Texas	The largest shortage of teachers is found in bilingual education. Several fields of science are probably in short supply because the state certifies with a science composite. Therefore, many physics teachers, for example, may be only marginally qualified. Furthermore, many emergency permits are issued in science and mathematics. Vocational education teachers are also in short supply.
Utah	Significant teacher shortages are being experienced in mathematics, vocational education and some areas of science and special education. Utah's population is growing, and this is reflected in public school enrollment, which increased by nearly 15,000 in the last year.
Vermont	Teacher shortages are found in several science fields (especially physics), mathematics, home economics, business education, industrial arts and speech pathology. The state has recently initiated a teacher-placement service to help fill science and mathematics vacancies.
Virginia	Teacher shortages are prevalent in mathematics, some science fields (physics, chemistry and earth science), and in some areas of special education. When state graduation requirements are upgraded for mathemtics, science and foreign language, even greater teacher shortages may occur in these fields. Student K-12 enrollment has declined approximately 5% per year. This decline, however, may "bottom out" by the mid-1980s.

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

Washington	Critical teacher shortages are occurring in mathematics, physics, chemistry, earth science, and industrial arts. There is also a shortage in foreign languages and health education. Enrollment is dependent to some extent on geography. Seattle has experienced declining enrollments, while the suburbs and rural areas have maintained a fairly constant school population. By 1985, an increase in elementary enrollment is likely, and this will move through the system.
West Virginia	Of the 55 school districts in the state, 30 report shortages in special education, 25 in mathematics, 23 in speech pathology (which requires a Master's degree) and 19 in science (all areas). The state board has noted that a general problem is that of salaries. For example, there have been no salary increases for two years, and the state is currently in a "freeze" situation.
Wisconsin	Several teaching fields are currently experiencing some shortages. These include industrial arts, English, agriculture and some areas of special education. Although science and mathematics are not a problem at this time, shortages may occur in the future. One indication is the issuance of some provisional licenses in these fields. Student enrollment has been declining generally in the state.
Wyoming	There is no current critical shortage of mathematics or science teachers; however, there is a projected physics teacher shortage. One factor affecting teachers is the current economic down-turn; teachers prefer to keep their teaching positions.

Table VIII (Continued)

TEACHER SHORTAGES; K-12 STUDENT ENROLLMENT PRESSURES

Another future impact on the workforce may result from a planned statewide assessment of students' basic skills. If the assessment shows the need for heightened curriculum requirements, more teaching staff would be needed.

Student enrollment at the secondary level is decreasing; in the elementary grades it may increase somewhat in the next few years.

Table IX

INCENTIVES: SCHOLARSHIPS/LOANS TO ATTRACT AND TRAIN NEW TEACHERS

Alabama	Scholarships are available for mathematics and science teacher training -- for both the undergraduate and graduate levels. A total of $50,000 per year is allocated to the program. During the first year, 11 high quality students received awards; and many more had applied. Recipients must teach two years in the public secondary schools for each year they receive an award.
Alaska	The state has a loan program for training not only teachers but also other professionals (e.g., lawyers). Up to $6,000 per year is available for both undergraduate and graduate work -- including study in out-of-state IHEs. Fifty percent of a loan can be forgiven if the recipient returns to Alaska to practice his/her profession.
Arizona	Policy and funding ($100,000) has been established to provide support for students who are seeking an undergraduate education degree in mathematics and/or science.
Arkansas	Act 390 of the 1983 General Assembly (effective July 1, 1983): "Emergency Secondary Education Loan Program for Granting Awards to Students Studying for Certification in Mathematics or the Sciences." (Areas of science study: chemistry, physics, biology, physical science, general science.) Loan amounts may be up to one-half of fees, room and board, books, etc., for four years of college (or until certified). Priority will be given to high academic ability. One-fifth of loan to be forgiven for each year of teaching (after five years' teaching, total loan is forgiven).
California	The new education bill (SB 813) establishes a loan program for students training to teach in critical shortage areas, particularly science and mathematics. The loans can be forgiven with subsequent teaching.

Table IX (Continued)

INCENTIVES: SCHOLARSHIPS/LOANS TO ATTRACT AND TRAIN NEW TEACHERS

Connecticut	Effective July 1, 1983, is a bill to provide loans to junior or senior college students (or graduate students who have not had teacher training) of up to $5,000 for a maximum of two years to be trained as teachers for shortage areas. (Shortage areas are mathematics, science and industrial arts). If the student subsequently accepts a teaching assignment in a shortage area, the loan is forgiven at the rate of 20% per year. If the person does not teach, the loan must be paid back at a rate above the current interest rate.
Florida	The 1983 legislature appropriated $500,000 for 1983-84 and $1.5 million for 1984-85 to attract teachers to critical shortage areas. Included are a scholarship loan program, a tuition reimbursement program and a loan forgiveness program. "Critical shortage" means mathematics and science, and economic-need areas, in 1983-84; thereafter, the state board will identify critical shortage areas annually.
Georgia	This is the first year of a loan program to provide $1,500 a year to train students as teachers of mathematics, science and special education. The first priority of the program is to train new teachers (i.e., beginning college students); the second priority is to retrain teachers in surplus fields to become mathematics, special education and science teachers. The loan is forgiven for subsequent years of teaching (e.g., four years' loan is forgiven after 4 years' teaching). A total of $135,000 is allocated for this first year; this would provide 90 loans.
Hawaii	Federal grants proposals are being submitted to train bilingual persons as teachers to meet the state's need for teachers in the "Students with Limited English Proficiency" classes.
Indiana	In the recent legislative session, a bill was passed to provide loans (with a forgiveness provision for subsequent teaching) of $2,000 per year (up to $10,000 total to an individual)

Table IX (Continued)

INCENTIVES: SCHOLARSHIPS/LOANS TO ATTRACT AND TRAIN NEW TEACHERS

	for college training in mathematics, science or other shortage areas. Fifty thousand dollars for each of the next two years was the total appropriation to fund the program.
Iowa	The legislature, in its recent session, funded a program to provide loans to students to become mathematics or science teachers. The loan would be forgiven with subsequent teaching.
Kansas	The recent legislature considered a bill to provide scholarships to teacher candidates in all fields; and extra incentives to those training in physics, mathematics, science or vocational education. The legislature, however, did not enact this measure.
Louisiana	A proposal was introduced in the recent legislative session to provide loans for training of teachers in mathematics, science and foreign languages. Although the measure passed, it was not funded.
Maine	The legislature in its recent session discussed the possibility of loans, with forgiveness provisions, for mathematics and science teacher training -- and retraining of current teachers. Training programs for other shortage areas were also discussed. However, no specific bills were introduced.
Maryland	The recent "Commission on Quality Teaching" has recommended scholarships/loans for three categories of teacher candidates: (1) those preparing to teach in projected teacher shortage areas; (2) scholastically superior or talented individuals; and (3) those willing to teach in geographic areas with teacher shortages. Debt forgiveness would be applicable with subsequent teaching; otherwise, repayment would be required.

Table IX (Continued)

INCENTIVES: SCHOLARSHIPS/LOANS TO ATTRACT AND TRAIN NEW TEACHERS

Mississippi	The legislature has approved loans for the training of new teachers in mathematics and science.
Missouri	Although the state government does not sponsor a scholarship or loan program, the University of Missouri at Columbia does offer some scholarships for teacher training programs in mathematics.
Nebraska	In its recent session, the legislature passed a bill (which was signed by the governor) to provide state-funded loans for science and mathematics training. Up to 30 applicants receive a maximum of $2,000. One year of teaching for every year of participation in the program is required. The state department will establish rules and administer the program.
New Hampshire	In the recent legislative session, a measure was introduced, but was not enacted, to provide forgivable loans for training of mathematics and science teachers.
New Jersey	The Advisory Council on Mathematics/Science Teacher Supply and Demand recommended that aid programs for both graduates and undergraduates be used to foster entry of students into mathematics and science teaching careers.
New York	The legislature recently considered a bill to provide loans for training of teachers in mathematics and science. This was recommended by the Board of Regents. Although no legislative action was taken, the measure will be resubmitted in the 1984 session.
North Carolina	Since the early 1960s, the state has provided $900 per student in scholarship monies -- mainly based on student financial need. Now, however, the basis is more on supply/demand for teachers; and the current emphasis is on giving aid to those training in mathematics and

Table IX (Continued)

INCENTIVES: SCHOLARSHIPS/LOANS TO ATTRACT AND TRAIN NEW TEACHERS

	science. Approximately $1 million each year is allocated for this program.
Pennsylvania	In the recent legislative session, a $2 million program was approved for loans/scholarships for mathematics and science teacher training -- to be administered by the Pennsylvania Higher Education Assistance Agency.
South Dakota	A proposed loan/scholarship program for mathematics and science training was defeated in the legislature in the recent session.
Utah	The State Normal School Scholarship Program, in effect for the past 30 years, funds the tuition of selected individuals who are preparing to be teachers. Approximately 400 students at several of the state's four-year and community colleges receive these grants. Currently the targeted recipients are those preparing to teach in high-need fields of mathematics, science and special education. Recipients are also selected with regard to scholarly ability, economic need and minority status. The University of Utah has provided presidential scholarships in science and mathematics to train undergraduates and graduates for teaching in these critical fields.
Vermont	In the recent legislative session, loans for mathematics and science (including computer science) teacher training were approved. A maximum of 25% of a loan will be forgiven each year if a graduate subsequently teaches. The amount of money available to an individual student will depend on the number of qualified applicants; the amount budgeted this year for the entire program is $10,000.
Washington	The legislature recently enacted a loan program for college students training to become secondary mathematics and science teachers.

Table IX (Continued)

INCENTIVES: SCHOLARSHIPS/LOANS TO ATTRACT AND TRAIN NEW TEACHERS

	Over a 10-year period of subsequent teaching, an individual's entire loan could be forgiven. A total of $500,000 has been budgeted for this new program for 1983-85.
West Virginia	Scholarships and loans (with forgiveness provisions) for mathematics and science were considered in the most recent legislative session, but did not pass.
Wisconsin	The state superintendent is proposing several initiatives to the legislature in fall 1983. Among these is a scholarship fund for undergraduates majoring in mathematics or science education. One hundred scholarships at $2,500 per student would be based on academic ability and a commitment to teaching.

Table X

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

Alabama	The scholarship program discussed in Table IX is also available to retrain teachers from other fields to become mathematics and science teachers, and to train nonteaching professionals as mathematics and science teachers.
Arizona	In 1983, the legislature allocated $250,000 to the Arizona Board of Regents to support projects designed to increase knowledge and/or improve the skills, competencies and effectiveness of teachers employed by elementary and secondary schools in Arizona to teach mathematics and science. Additionally, monies are available for teachers from other disciplines who are seeking recertification in mathematics and/or science.
California	California teachers who take university summer courses in designated fields (including mathematics and science) can receive stipends from the state through a program administered by school districts.
	The new education bill (SB 813) creates a loan program for teachers to acquire both initial training and also retraining in critical shortage areas. SB 813 also allows high schools to hire teacher trainees who have a bachelor's degree, but who have not had professional teacher training. These trainees must pass basic skills and subject matter examinations, have an individualized training program, and be assisted by a mentor techer (see Table XI).
Connecticut	The loan program discussed in Table IX is available to graduate students who have not had teacher training.
	Local districts in Connecticut may acquire permits to hire teachers who are not certified for shortage areas. These teachers must enroll in a planned program that will lead to

Table X (Continued)

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

	fulfillment of certification requirements. They must complete at least six credits annually for renewal of their permits. In lieu of student teaching, college personnel supervise these teachers on-the-job. This program can be viewed as a way to attract nonteaching professionals (e.g., from industry) into the teaching profession. The school district in Hartford, Connecticut, pays the tuition for elementary teachers who go to the University of Hartford to be trained as secondary mathematics teachers.
Florida	The 1983 legislature appropriated $9.6 million for intensive summer institutes for teachers; current emphasis is placed on elementary and secondary mathematics and science teachers who are teaching out of their field. One-half of the state's mathematics and science teachers can participate each year. The legislature will identify annually teaching areas for summer institutes. A funded summer camp program for students provides an opportunity for clinical teaching in these summer institutes.
Georgia	Loan program to retrain teachers in science, mathematics and special education (see Table IX).
Illinois	In the recent legislative session, a measure was introduced to provide scholarships of two years' duration for retraining of teachers to acquire teaching skills in mathematics and science. As of September 12, 1983, the legislation is awaiting the governor's action.
Indiana	The legislature, in its recent session, appropriated $150,000 for each of the next two years to reimburse tuition costs of teachers who take courses to be retrained as teachers of mathematics, science or other shortage areas.

Table X (Continued)

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

	Priority for this retraining is given to those who have lost their jobs due to reductions in force.
Kentucky	Kentucky has a loan program to retrain teachers (i.e., those who have already taught or at least finished a teacher education program) in skills needed to teach in high demand areas such as mathematics and science. The major thrust is to retrain teachers from over-supplied fields such as social studies. Total allocation is $600,000 per year. The Bureau for Exceptional Children has some funds available for summer training for special education teachers.
Maine	A program has been in effect for one and one-half years to provide in-the-field training to speech and hearing specialists who are currently teaching but not fully certified. This three-year training program leading to full certification is provided at no cost to the individual teacher; currently 20 individuals are participating. With approval of the state board, the University of Southern Maine and the Portland school district is beginning a nontraditional teacher training program to attract individuals with at least an arts and science degree who are interested in a mid-career change. After a rigorous screening process, applicants will participate in a six-week summer session followed by one week of intensive teaching activity. After eight weeks of independent study, there will be student teaching in the Portland schools supervised by a master teacher and faculty adviser. Maine certification will then be awarded. (After certification, these teachers will continue to be supervised.) It is hoped that this new approach which does not incorporate the traditional structures will attract able, skilled people into teaching. The program is being piloted in 1983-84. The state board will review the program in the future.

Table X (Continued)

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

Maryland	The "Commission on Quality Teaching" suggested retraining for those who are teaching in a subject for which they are not fully certified. The goal would be recertification in their new assignment within three years. The Commission also recommended that local districts reimburse selected teachers who take credits toward certification in an area of need. (Two years of subsequent teaching would be required in the area.)
Massachusetts	The University of Massachusetts at Amherst, several local industries and the public schools are cooperating on a Mathematics/Science/Technology Education Project. Successful applicants will participate in a 14-month program of coursework, paid corporate internships and on-the-job training which will lead to a certificate to teach physics, mathematics or chemistry -- and also a master's degree. Graduates must make a commitment to teach three years in the public schools, and can continue their relationship to industry through summer employment -- or they can pursue a second master's degree in physics or computer science.
Minnesota	There is a provision in the newly enacted "Technology and Educational Improvement Law" (effective July 1, 1983) for districts to apply for grants which can be used for retraining of teachers.
Mississippi	The legislature has appropriated funds for mathematics and science loans for three summers to retrain and recertify teachers who already hold degrees. Forgiveness of the loan is based on one semester of teaching for each summer in the training program.
Missouri	The state sponsors a summer institute focusing on mathematics skills to retrain elementary teachers for grades 7,8 and 9. Through this program, two universities are offering all-day

Table X (Continued)

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

	workshops concentrating on mathematics content knowledge and "how-to-teach." The universities charge a reduced rate of $450 per participant, of which the state department pays $100 and the local school district $350. Hence, there is no charge to the teacher in most cases. Twenty teachers participated last year, and 25 this year; they are chosen by the IHE based on background and mathematics aptitude. The rationale for retraining is based on statistics showing that only 40% of newly trained mathematics teachers actually go into teaching; many find employment in industry. Therefore, the focus is on retraining those who are already committed to the teaching profession. There has been some discussion of expanding this program to the sciences in future years.
New Jersey	The Advisory Council on Mathematics/Science Teacher Supply and Demand made several recommendations: summer institutes and inservice workshops (including use of industry resources) to upgrade skills of those already certified in mathematics and science; summer institutes followed by a year of supervised teaching and coursework for mathematicians and scientists; 15-month full-time program to train surplus teachers in mathematics and science; a job bank/referral system to help prospective mathematics and science teachers find training programs and jobs; and loans with forgiveness provisions for participants in these various programs. Under consideration is certification (through an internship) for people who demonstrate knowledge of subject matter through testing, but are not trained as teachers, and a retraining program for teachers to become trained in mathematics and science.
New York	The legislature considered two bills (proposed by the Board of Regents) to provide graduate fellowships for current teachers of mathematics and science; and to establish an inservice

Table X (Continued)

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

	program to retrain teachers from other disciplines in mathematics and science. Although no legislative action was taken on these bills, they will be resubmitted in the 1984 session.
North Carolina	The legislature in its recent session provided $1.4 million for retraining of teachers from other fields in science, mathematics and writing skills. Most of this retraining will be provided through summer institutes.
North Dakota	Twenty-five teachers (mainly in social science) are involved in a summer program to be retrained as mathematics teachers. The state department of public instruction and North Dakota State University jointly sponsor this program.
Oklahoma	The legislature in its recent session considered several bills to attract people into teaching -- either those who have left the profession, or people from business and industry who could be trained and certified as teachers. However, no legislative action was taken on these bills.
South Carolina	In 1983, the General Assembly provided $1 million for teacher retraining and recertification. Funding priorities in 1983-84 are given to teachers enrolled in mathematics, science and computer science courses.
Texas	A focus in some of the Local Cooperative Teacher Education Centers (See Table VII) in 1982-83 was that of retraining existing teachers for possible assignment to areas of critical need.
Utah	The state department of education and the University of Utah have applied to a private foundation for matching grant monies to provide loans to teachers for retraining. The focus is

Table X (Continued)

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

	two-fold: (1) more training for those already teaching mathematics and science; and (2) retraining of teachers in surplus areas to become skilled as mathematics and science teachers. The University of Utah presidential scholarships discussed in Table IX are also available to graduates for teacher training in critical-need fields.
Vermont	The University of Vermont has recently begun a program to provide teacher training to nonteaching professionals who have at least a B.A. or B.S. in mathematics, science or engineering. This is a fifth-year program of 30 semester credits (including student teaching) to train secondary mathematics and science teachers. The program was designed to attract early retirees from other professions. Of the 15 current participants, approximately half are in the process of early retirement; but half are people interested in mid-career changes.
Virginia	A state board regulation permits liberal arts graduates with no teacher preparation to receive two-year teaching certificates -- with the provision that they take nine credits and be observed in the classroom during these two years. Special education traineeship loans (for teachers needing a second area of endorsement) in the amount of $450 per individual have been offered since 1972. The General Assembly allocates funding; in 1982-83 the amount was $70,000. Four IHEs received $10,000 to retrain teachers for certification as mathematics instructors. Additional funding has been requested to extend this assistance. The first year of this program will end on June 20, 1984; 60 participants are in the program.

Table X (Continued)

INCENTIVES: RETRAINING FOR THOSE ALREADY HOLDING A COLLEGE DEGREE

Washington	Those already holding degrees in mathematics or science may qualify for the incentive loans described in Table IX, if they return to college to complete certification courses.
West Virginia	The state board of education is currently designing a model for on-the-job training (in shortage areas of mathematics, science and special education) of persons with college degrees who are either not trained as teachers, or who currently teach in other fields. The aim of the program is to tie emergency certification with intensive training -- but not through a standard undergraduate college program. The board would like a new approach which might include release time and a new kind of field coordination with colleges. (One IHE has already taken its special education program "to the field.") It is also hoped that retirees from business/industry might be attracted to this program. The state legislature has asked that a funding package for this be submitted next session. The board has also contacted various foundations for support.
Wisconsin	The state superintendent will submit to the legislature in fall 1983 several proposals. Included among these are the following: (1) grants of $4,000 each to 400 elementary and secondary mathematics and science teachers to return to school for advanced training for one full-time academic year; (2) grants of $8,000 each for 200 teachers from other fields to be retrained as science or mathematics teachers; and (3) grants of $4,000 each to 50 vocational education teachers to improve their science and mathematics skills.
Wyoming	The legislature has recently passed a measure to provide some support to teachers for attendance at summer institutes to acquire additional skills in science, mathematics, foreign language or technology.

Table XI

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

Arizona	During the summer of 1983, the Joint Interim Education Committee on Career Ladders for Teachers met to discuss plans for improving compensation, recognition and training of school personnel. Legislation will be introduced in the 1984 session to allow school districts to establish career ladder programs and teacher award programs.
California	A key feature of the new education bill (SB 813) is the establishment of a "mentor" teacher program. Up to 5% of the teachers in a district could be selected as mentors; a committee composed mainly of teachers (but including administrators and parents) would nominate the mentors and the school board would confirm them. One selection criterion would be that of recent exemplary experience. Mentor teachers would serve for three-year periods, and would receive additional salary of $4,000 per year. Their mentor duties would cover curriculum and staff development -- including assisting beginning teachers. Sixty percent of a mentor's time will be as a regular classroom teacher. SB 813 increases beginning teacher salaries by 30% over a three-year period. Increases are capped, however, at $18,000, adjusted for inflation. Another provision in SB 813 allows local collective bargaining for teacher pay based on factors other than education and years of service.
Colorado	Six state task forces are studying various issues addressed by national task forces, such as the National Commission on Excellence in Education. Areas of Colorado task force inquiry include curriculum, length of school day and year, student attitudes, professional teacher preparation and "master teacher" ideas.
Florida	The 1983 legislature created a 15-member Florida Quality Instruction Incentives Council

Table XI (Continued)

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

	to oversee development of a statewide merit pay plan for teachers. The council's duties include development of (1) subject area tests for certification, (2) teacher performance evaluation instruments and (3) training for administrators and teachers in the process of teacher performance evaluation. Furthermore, the legislature also passed a merit pay/career incentive program -- which is to be modified by the council. This program includes: (1) voluntary merit pay plans to be developed at the district level through collective bargaining and (2) development of statewide career incentives for advancement based on job performance, among other criteria. For 1984-85, $80 million was appropriated to fund merit pay/career incentives (and also for funding of a lengthened school day for high school). In another bill, the legislature authorized school districts to employ adjunct instructors, who have not met certification requirements, for critical shortage areas. Adjunct instructors must be recent Ph.D. graduates or candidates. The legislature mandated two years ago that a program be designed to provide pay differentials to principals who demonstrate superior leadership/performance.
Hawaii	Teachers and administrators may apply for sabbaticals for purposes of approved study, at the rate of full pay for one-half year or half pay for a whole year. Fifty sabbaticals per year are given to teachers, and seven to administrators. For some workshops, teachers and administrators from other islands are reimbursed for transportation costs to Oahu. Teachers who hold a professional certificate may apply (or be recommended) for the Education Management Training Program. If selected, teachers participate in a combination of two-week workshops and college courses, and are

Table XI (Continued)

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

	supervised on-the-job for one semester. Administrative certification is then awarded. The purpose of this program is to prepare a group of people who will be able to fill leadership positions in the schools as vice-principals or principals.
Illinois	The legislature recently enacted a proposal which recognizes and honors Illinois teachers who have made outstanding contributions to their profession. Approximately 500 teachers, both public and non-public, will be selected by regional committees each year to receive $1000 stipends. Also, through three days of release time, these model teachers will be available to other teachers as resources for consultations, workshops, etc.; or they may elect to develop publications or instructional materials. As of September 12, 1983, the legislation is awaiting the governor's action.
Indiana	The recent legislative session provided tax incentives to business and industry to employ teachers in the summer only. If a teacher does not return to the classroom, the incentives are inoperative.
Louisiana	In 1980, the voluntary "Professional Improvement Program" was enacted to provide salary enhancements to teachers of $2,000 per year (or more) for up to five years of participation in individually planned profesional development programs. Teachers submit a five-year plan which is approved by a local committee composed of teachers. Two types of activities can be included: (1) academic, e.g., taking college courses, preparing and conducting workshops, supervising student teachers, or developing innovative programs; (2) inservice, e.g., attendance at approved conferences or workshops, taking continuing education courses, tutoring or serving on task forces. A total of $69 million was appropriated by the legislature for this

Table XI (Continued)

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

	program. Results to date are encouraging: more teachers are staying in the profession and also improving their instructional skills.
Maryland	The "Commission on Quality Teaching" made several recommendations: (1) increase salary levels to be competitive with private industry, government, etc.; (2) eliminate disruptive classroom behavior; (3) create significant salary ranks at the local district level to encourage superior teachers to remain in the classroom; (4) encourage links between business/industry and the local district for summer employment of teachers in their teaching fields; and (5) reward distinguished teaching performance with public and peer recognition.
Massachusetts	See Table X for information on a program of cooperation between the university, industries and the public schools.
Mississippi	The new reform law addresses the issue of "merit" pay and professional development. Individuals (teachers and administrators) who have taught five years will establish a professional development program. Completing their programs (including evaluations) will entitle them to salary increments beyond the regular salary schedule. The program will also require training for people who administer the program and evaluate personnel. Pilot testing of several years will be needed.
Montana	Some of the larger school districts offer sabbaticals to their teachers. In addition, some offer expense-paid workshops for professional development.
Nevada	Some individual school districts are able to offer various incentives. These include sabbaticals, extra pay for master teachers who

Table XI (Continued)

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

	observe other teachers, and career ladders. In the latter category, district employees are given priority and training for new job opportunities in the district.
New Jersey	The governor of the state has indicated that he is interested in exploring the possibility of "merit" pay for teachers and a master teacher plan.
New Mexico	"Merit pay" has been discussed by governmental entities and teacher organizations. No proposals have been developed.
New York	A recruitment conference sponsored by the Board of Regents has recommended (among other suggestions) tax credits for teachers and mid-career internships for teachers in business and industry. A bill proposed to the legislature by the Board of Regents would create "consultantships" for teachers to allow them to travel around the state to advise other teachers. Although the legislature took no action on this proposal, it will be resubmitted in the 1984 session.
North Carolina	One school district -- Charlotte-Mecklenburg -- is close to adopting a multi-level career-advancement ladder for teachers which can lead to significant salary increments. It is possible that in the future the legislature may consider a similar system for the entire state.
North Dakota	The legislature has considered the issue of "merit" pay for teachers. However, the state's economic situation has limited the funding possibilities for such measures.
Oregon	Some individual school districts have had "merit" pay plans for as long as 15 years.

Table XI (Continued)

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

	Furthermore, some districts offer sabbaticals, career ladders or other benefits -- often as part of collective bargaining negotiations.
South Carolina	A task force jointly appointed by the governor and the state superintendent of education is presently exploring, in depth, various alternatives to provide incentive pay for quality teaching. This task force is comprised of key individuals in the South Carolina business and industry community.
Tennessee	In the 1983 legislative session the governor proposed a Better Schools Program which included as the "heart" of the plan the master teacher-master administrator program. The program sets up a career ladder with incentive pay -- based on meeting education and experience qualifications, and also on positive evaluations of teaching/administrative performance along several dimensions. Certification classifications would be revised to conform to the stages in the career ladder. Although not approved in the recent legislature, the plan is currently being studied by a legislative interim committee, and also by state department of education staff. One aspect being examined is that of evaluation criteria. In the fall of 1983, hearings will be conducted to obtain input from teachers on the plan.
Texas	Several bills were considered, but did not pass, in the recent legislative session. Included were an across-the-board salary increase; a provision to allow qualified personnel from industry to teach mathematics and science; and an "excellence fund" to reward talented teachers.
Utah	Stipends are provided by the state to teachers for attendance at selected workshops, which can be used for credit.

Table XI (Continued)

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

	Several recommendations in the governor's plan, "Solving the School Crisis Phase II," relate to improving the attractiveness of the teaching profession. These include new career patterns which would allow more flexibility to teachers and higher salaries. The state office of education has proposed that the state board put into their legislative proposal a teaching career plan with three levels of teaching service and appropriate salary schedules. These include apprentice teacher (for two to three years), professional teacher and teacher leader.
Vermont	Some individual school districts reimburse teachers and administrators for attendance at workshops. Some districts also allow travel leaves and award credits for foreign travel.
Virginia	The governor is interested in raising Virginia teacher salaries to the national median. In the last two years, salaries have increased by 10% and 9.7%. House Joint Resolution 93 was promulgated by the 1982 General Assembly. It requested the board of education to determine the feasibility of differentiating compensation for outstanding performance in teaching. The state department of education subsequently reviewed the research and also current practices of some districts. (In Virginia, three school districts already have differential pay schedules in place.) A task force appointed by the governor is now studying the issue and will make recommendations by fall 1983. A likely recommendation will be that information on various career options be given to local districts, along with suggestions on how to implement them, and districts determine what is best for their particular situations. The governor recently announced that his 1984-86 budget will include $500,000 for a pilot project to test several performance-based plans.

Table XI (Continued)

INCENTIVES: MERIT PAY; MASTER TEACHER PLAN; CAREER LADDERS; COOPERATION WITH BUSINESS/INDUSTRY; OTHER ACTIVITIES

	Some local school districts cooperate with business/industry by supplementing their science teaching capabilities with part-time teaching by employees of local industry.
West Virginia	The state board of education is in the process of investigating "merit pay." The board has also looked at models of effective teaching, effective schooling, career ladders, etc., and has produced a proposal for West Virginia. One aspect of this proposal would require teachers to not only earn "merit pay" initially, but also continue to demonstrate outstanding teaching in order to keep the "merit pay." One unresolved issue concerns how evaluations of teachers will be carried out. The board is also looking at individual teacher and schoolwide models.
Wisconsin	The state superintendent is proposing several initiatives to the legislature in fall 1983. Among these is a proposal for 24 master teachers to be paid $25,000 each to staff university mathematics and science centers, and to work in preservice and inservice training programs in universities and public schools.